APPROVED, DCN# 43-7694-21

ANNUAL REPORT

NAVALX
TECH BRIDGE

2020

WELCOME TO OUR WORLD

Empowering our network to achieve Naval Excellence

Tech Bridge Network,

On September 3rd of 2019, we put a concept into practice that we believed would enable our Department of the Navy fleet and workforce to find, develop, and adopt solutions to their problems more rapidly. We believe our mission is to harness talent and technology by building stronger relationships with non-profit organizations through Tech Transfer authorities like Partnership Intermediary Agreements (PIA) and by getting comfortable using non-FAR-based contracting mechanisms like Prize Challenges to attract a wider pool of expertise and solution sets to problems. To accomplish this mission, we started looking for pockets of innovators, visionaries, and entrepreneurs within the Department of the Navy that were eager to better connect to each other and with their local talent in industry and academia. Building local teams took anywhere from a few weeks to almost a year, as it required command leadership to opt into the vision, see value, and offer a full time Tech Bridge Director to serve as their conduit into the network and lean forward by exercising new or under-utilized authorities.

In just over a year, we grew our ranks to 15 Tech Bridge locations, and we saw 11 new PIA partners added to our external team. We hosted eight prize challenges facilitated by warfare centers - some of which had never utilized the Prize Challenge authorities previously - and saw more than $40M committed to Small Business Innovative Research (SBIR) to solve maintenance challenges that one of our Tech Bridges sourced and curated from across the sustainment community.

One of the strongest features of this team is its resilience and ability to embrace adversity and gain momentum from it. Each Tech Bridges has built a network of strong partnerships with local industry, academia, small business, and government entities. The collective network has had many successes in just over a year, and this annual report is only a glimpse into the goodness it has accomplished.

Whitney Tallarico
Co-founder & Director of NavalX Tech Bridges

TABLE OF CONTENTS

NAVALX TECH BRIDGE LOCATIONS

WESTERN REGION	
SoCal	San Diego, CA
Ventura	Ventura, CA
Northwest	Keyport, WA
Central Coast	Monterey, CA
Inland Empire	Norco, CA
Hawaii	Honolulu, HI

SOUTHERN REGION	
Central Florida	Orlando, FL
Palmetto	Charleston, SC
Mid-Atlantic	Norfolk, VA
Gulf Coast	Panama City, FL

MIDWESTERN REGION	
Midwest	Crane, IN

NATIONAL CAPITAL REGION	
Capital	Washington Metropolitan Area

NORTHEASTERN REGION	
Northeast	Newport, RI
Southern Maryland	Patuxent River, MD

INTERNATIONAL	
London	London, United Kingdom

U.S. NAVY PHOTO BY JONATHAN STEFFEN

"TECH BRIDGES ARE PLACES WHERE
GREAT MINDS CAN COME TOGETHER
IN A UNIQUE ATMOSPHERE,
SHARE IDEAS AND TECHNOLOGIES,
AND EXPLORE *'WHAT IF ... '"*

- Rear Admiral Lorin Selby | Chief of Naval Research

WHAT ARE TECH BRIDGES?

Tech Bridges are NavalX entities scaled across the world, rooted in the Department of the Navy (DON) Commands to execute the NavalX mission locally.

As a direct-report initiative under the Assistant Secretary of the Navy for Research, Development, and Acquisition (ASN RDA) and sponsored by the Office of Naval Research (ONR), NavalX connects experts and solutions to Naval needs and challenges by:

- Serving as a platform that connects people, ideas and best practices
- Guiding naval stakeholders to rapidly deliver capabilities
- Encouraging and fostering positive and productive culture change

Tech Bridges bring together innovative organizations, local industry, academia, small business, and other government entities to accelerate results and solutions to the DON by:

- Connecting DON Initiatives using the Innovation Pipeline
- Increasing local access to innovation ecosystems
- Reducing barriers between Navy and non-traditional partners

THE INNOVATION PIPELINE

The innovation pipeline provides a framework for rapidly identifying programs that can support technology transition by mapping programs schedules, duration, entrance and exit criteria, etc. across the pipeline. Documentation on each of the steps in the process is used to identify bottlenecks in the project life cycles and report on the overall health status of innovation in the DON.

This process is founded on the assumption that:

- aligning critical stakeholders early speeds up the process
- using documented steps to record and share lessons learned will continuing improving the process

INNOVATION LAUNCHPAD AT NAS POINT MUGU

STAGES OF THE INNOVATION PIPELINE

SOURCE → CURATE → SCAN → INCUBATE → PROTOTYPE → VALIDATE → TRANSITION → SUSTAIN

NAVAL RESEARCH LABORATORY
U.S. NAVY PHOTO BY JONATHAN STEFFEN

SOURCE: Gather problems from across the DON

CURATE: Define stakeholders / problem owners / funding sources / requirement holders for the deficiency

SCAN: Market surveys, tech scanning, government labs scanning to identify how others are handling or solving similar deficiencies

INCUBATE: Creates and iterates minimum viable products (MVPs)

PROTOTYPE: Create and test prototypes with end users

VALIDATE: Works with the fleet / end user to validate solutions on test platforms

TRANSITION: Scales the solution

SUSTAIN: Creates/works with lifecycles for products, predictive maintenance schedules, obsolescence

TECH BRIDGE HIGHLIGHTS

2020

IN JUST OVER A YEAR,
THE TECH BRIDGE NETWORK:

Made over 20k connections:
21% Government
67% Industry
11% Academia

Deployed the first Tech Bridge technology with 5G tower at MCAS Miramar with the SoCal Tech Bridge

Generated over $50M Tech Bridge projects to include prize challenges and small business innovation research projects

Signed and funded 11 Partnership Intermediary Agreements (PIAs) to support Tech Bridge outreach to small businesses, host events, tech scouting, operations, and provide low-barrier to entry meeting spaces

Collaborated with OPNAV N7, Joint AI Center, Digital Transformation Office, Navy chief AI Officer to run the AVENGER AI Challenge to press eight conceivable AI applications to test with the fleet and subsequent scaling

Accelerated during COVID-19 world-wide pandemic: accelerated response, getting 4 PPE projects funded in weeks. Tech Bridges embraced digital tool capabilities and converted events to be all-virtual events, meeting, and trainings

Grew to 15 Tech Bridge locations and created 15 new DON positions to support regional and national collaboration

Supported Naval STEM alongside CHINFO, ONR, and NIWC-Pacific to bring STEM to the forefront of the public conversation on the Navy and Marine Corps

"CHANGE
BEHAVIORS

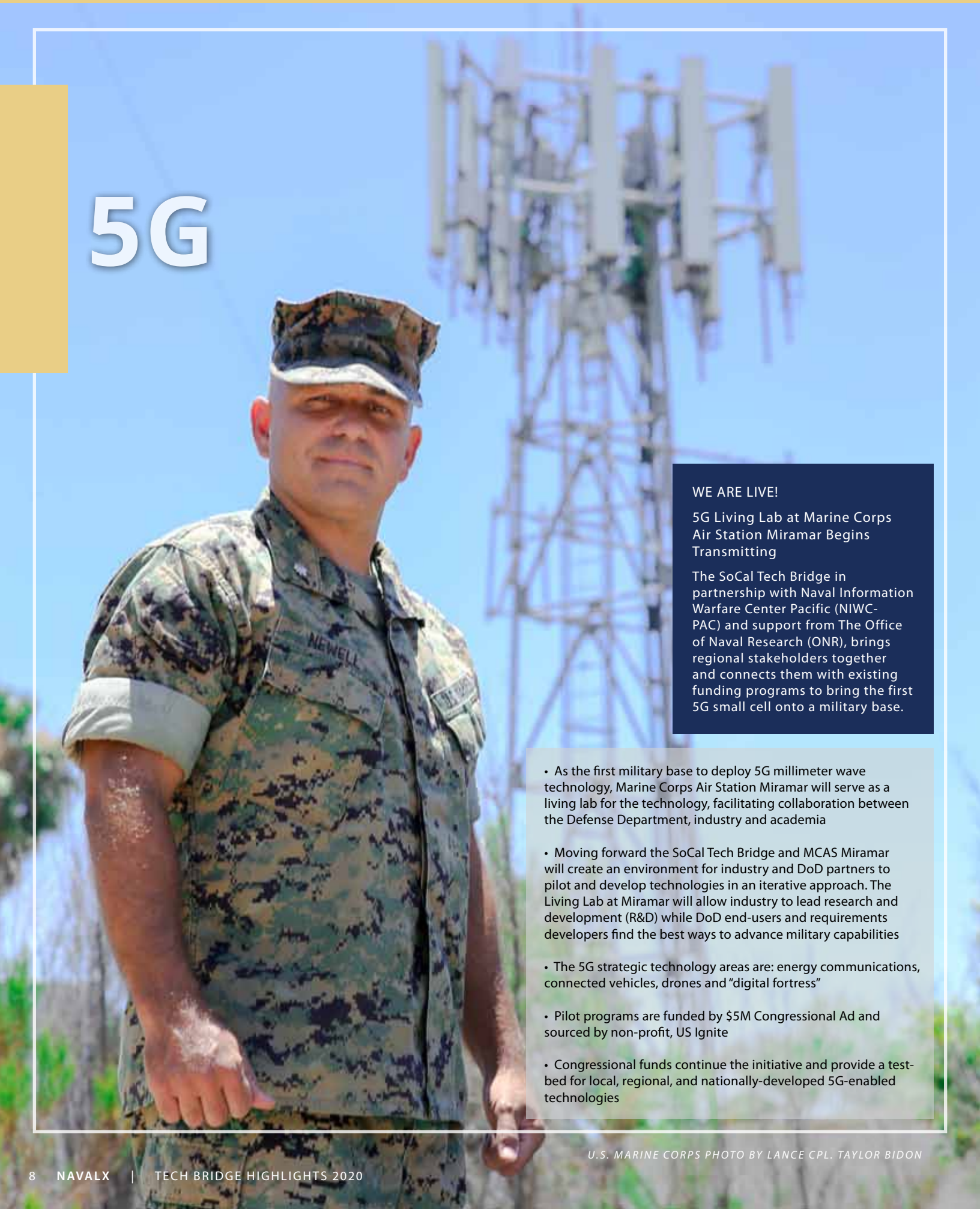
AND THE
ENVIRONMENT...

CULTURE
IS THE OUTCOME"

- James "Hondo" Geurts
Assistant Secretary of the Navy for Research, Development & Acquisition 2017-2020

HEADQUARTERS
TECH BRIDGE
POWERED BY NAVALX

5G



WE ARE LIVE!

5G Living Lab at Marine Corps Air Station Miramar Begins Transmitting

The SoCal Tech Bridge in partnership with Naval Information Warfare Center Pacific (NIWC-PAC) and support from The Office of Naval Research (ONR), brings regional stakeholders together and connects them with existing funding programs to bring the first 5G small cell onto a military base.

- As the first military base to deploy 5G millimeter wave technology, Marine Corps Air Station Miramar will serve as a living lab for the technology, facilitating collaboration between the Defense Department, industry and academia
- Moving forward the SoCal Tech Bridge and MCAS Miramar will create an environment for industry and DoD partners to pilot and develop technologies in an iterative approach. The Living Lab at Miramar will allow industry to lead research and development (R&D) while DoD end-users and requirements developers find the best ways to advance military capabilities
- The 5G strategic technology areas are: energy communications, connected vehicles, drones and "digital fortress"
- Pilot programs are funded by $5M Congressional Ad and sourced by non-profit, US Ignite
- Congressional funds continue the initiative and provide a test-bed for local, regional, and nationally-developed 5G-enabled technologies

U.S. MARINE CORPS PHOTO BY LANCE CPL. TAYLOR BIDON

MAINTENANCE & SUSTAINMENT

NORTHWEST TECH BRIDGE

NUWC Newport and Puget Sound Naval Shipyard (PSNS) have engaged the Office of Naval Research Code 36 Naval Innovation Process Adoption (NIPA) to solve critical challenges facing the Fleet.

The first challenge was presented by PSNS regarding cleaning condensers on aircraft carriers. They were unable to clean the condensers in time to finish maintenance availabilities and those condensers were keeping carriers from returning to sea.

PUGET SOUND NAVAL SHIPYARD
U.S. NAVY PHOTO BY JASON KAYE

The NIPA helped them rapidly scope the requirements, identify new technologies from industry and rapidly test those technologies onboard carriers. In the span of one year, PSNS has fielded new technology and demonstrated rapid efficiency gains in condenser cleanings that now ensure condensers don't limit the availability.

Another challenge was presented by NUWC Keyport regarding modernizing critical underwater testing ranges in the Puget Sound Naval Shipyard. Again, the NIPA process rapidly captured stakeholder input, scoped requirements, engaged industry, and identified key technology focus areas for the range team to focus on. The range team then leveraged the Undersea Technology Innovation Consortium (UTIC) Other Transaction Authority (OTA) at NUWC Newport to get the right solution providers on contract. Key wins from this effort included NUWC Keyport engaging in their FIRST OTA ever and reducing traditional contract time by 50%.

A third challenge was also presented and funded by NUWC Keyport regarding creating a Digital Strategy to support strategic goals. The Chief Technology Officer leveraged the NIPA process to train the team on innovation processes, like Design Thinking, Agile Thinking, and Lean Startup. Then leveraging these industry best practices, the NIPA process organizes large and nebulous visions into a tactical and executable action plan. This effort will continue through 2021 and result in the rapid development of a clear NUWC Keyport Digital Strategy.

COVID RESPONSE EFFORTS

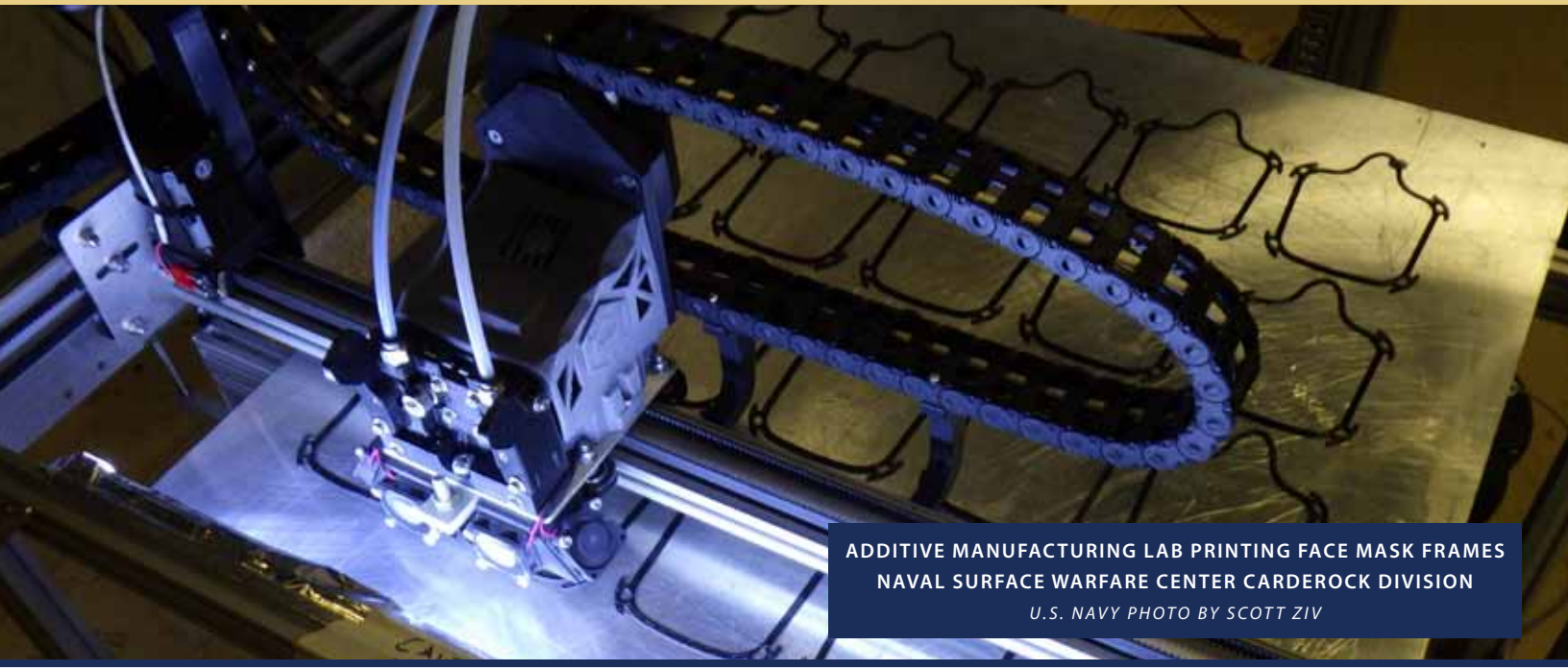
The entire Tech Bridge team unified during the global COVID-19 pandemic, hosting weekly coordination calls with other DON partners to ensure we were poised to help our fleet and surrounding communities with personal protective equipment (PPE). With our combined effort, we were able to deploy $800K in PPE production in weeks.

NORTHWEST TECH BRIDGE
3D PRINTING FACE SHIELDS FOR FIRST RESPONDERS
U.S. NAVY PHOTO BY NATHANAEL T. MILLER

NORTHWEST TECH BRIDGE

Naval Undersea Warfare Center (NUWC) Keyport partnered with multiple warfare centers, Army Medical Command, America Makes, ONR, NAVSEA, Veterans Administration, and many other organizations to design and build face shields, and replacement Powered Air Hood parts for the local community. Further, NUWC Keyport and the NW Tech Bridge rallied to support the USFK sponsored ONR TechSolutions challenge for making tactical face masks that could be both produced by industry and organic industrial base in the US and by Soldiers and Airmen via fieldable tooling on-site. These partnerships and efforts have revealed entire capabilities that previously lay dormant and unused with the organic industrial base and seek to be codified by the Joint Defense Manufacturing Council in the Organic Industrial Base Action Team construct currently under review.

U.S. NAVY PHOTO BY REBECCA NAPPI



ADDITIVE MANUFACTURING LAB PRINTING FACE MASK FRAMES
NAVAL SURFACE WARFARE CENTER CARDEROCK DIVISION
U.S. NAVY PHOTO BY SCOTT ZIV

GULF COAST TECH BRIDGE

Scientists and engineers from the Naval Surface Warfare Center Panama City Division (NSWC PCD) worked with the Gulf Coast Tech Bridge at the start of the pandemic to increase the chance of survival for those impacted by COVID-19 by creating a high-quality, low-cost ventilator. The United States Special Operations Command Vulcan platform launched the "Hack-a-Vent Challenge" resulting in 172 responses across academia, industry, and government. Five prototypes were recommended, one being PRE-Vent from a government team.

The Positive End Expiratory Pressure (PEEP) Regulated Emergency Ventilator (PRE-Vent) is a low-cost ventilator for COVID-19 victims that can be assembled from parts found at a hardware store using a set of simple instructions and was developed in just under two months. It took extraordinary dedication and personal sacrifice from each team member to close the gap in the availability and production of ventilators. A mass production of PRE-Vent has been prepared and will be used effectively and immediately by physicians.

VENTURA TECH BRIDGE AND FATHOMWERX
PROVIDE APPROVED ADDITIVE MANUFACTURED FACE SHIELDS

NORTHEAST TECH BRIDGE

Polaris Manufacturing Extension Partnership (MEP) Works with Local Textile Industry on Masks

Propel and Darlington, two Rhode Island (RI) companies has developed a fabric face mask using 3 layers of 100% nylon knit textiles and RI made elastic. The mask includes an adjustable metal stay for fit at the nose. The mask replicates the form and fit of nonwoven utility masks. It is known that medical personnel are reusing N95 masks. Propel developed a mask that could be used as a cover to an N95 mask. The outer textile has some level of fluid resistance and the inner fabrics are from Darlington.

Aiding in the Battle Against COVID-19

NUWC Newport is partnered with multiple warfare centers and other organizations in the fight against COVID-19. Lines of effort included reducing shipboard spread of the disease using UVC light; development of intubation boxes to limit spread in hospitals during procedures, and using a combination of additive manufacturing and silicone molding to produce stop-gaps masks. Collaboration partners included Puget Sound Naval Shipyard (UVC), Polaris MEP and Kent Hospital (Intubation boxes) and Lifespan and Brown (Silicone molding).

Northeast Tech Bridge Connects ONR and Natick Army Labs to Fund PPE Research

Realizing the supply chain issues with developing N95 masks, the 401 Tech Bridge reached out to local fabrics companies to investigate innovative ways to produce this crucial mask. Warwick Mills was identified as having a new concept to develop the masks using materials that can be sourced in the United States. Funding was secured from the Office of Naval Research and the Army to jointly support this effort. With top level support from the Technical Director of the Naval Undersea Warfare Center, Division Newport and the Director of the Expeditionary Maneuver Support Directorate at Natick, all barriers were removed and the NUWC Keyport contracting team awarded nearly $150K to Warwick Mills in record time. Ten days into the contract Warwick has already achieved over 95% particle capture testing with dioctylphthalate using a non-woven polypropylene filtration fabric. The established relationships between the NUWC Technology Partnership Office and local industry was key to this effort.

CENTRAL FLORIDA TECH BRIDGE

Naval Air Warfare Center Training Systems Division (NAWCTSD) and the Central Florida Tech Bridge supported the NavalX COVID-19 Task Force by discussing digital tools and solutions with naval schoolhouses, specifically Surface Warfare Schools Command (SWSC), to meet their distributed learning challenge.

ARTIFICIAL INTELLIGENCE

- INFUSING ARTIFICIAL INTELLIGENCE INTO THE DEPARTMENT OF THE NAVY
- CHALLENGING EXPERTS TO ADVANCE THE WAY WE SOLVE PROBLEMS
- PARTNERING WITH INDUSTRY, ACADEMIA, AND NON-TRADITIONALS TO ACCELERATE AI SOLUTIONS

AVENGER AI GRAND CHALLENGE

The Office of Naval Research (ONR) is spearheading a partnership with the Deputy Chief of Naval Operations for Warfighting Development (OPNAV N7), NavalX Tech Bridges, Warfare Centers, and the Navy Digital Transformation Office to drive Artificial Intelligence (AI) problem sets from the Navy and Marine Corps to solutions tested in the fleet within one year, and scaled solutions within 18 months. The AI Grand Challenge tests the NavalX Innovation Pipeline by recording and analyzing actions taken by the project teams. The data will be used to identify and clear barriers and unlock best practices for rapidly moving AI solutions to the fleet.

NAVY CHIEF AI OFFICER / OPNAV N7 / NavalX / JOINT AI CENTER / DIGITAL TRANSFORMATION OFFICE

AI CHALLENGE SETS

KNOWLEDGE MANAGEMENT
Second Fleet needs a way to rapidly filter, synthesize, and prioritize After Action Reports from training exercises in order to produce lessons learned and inform future decisions.

BASE ACCESS
NAS Whidbey Island Visitor Control Center requires a means to rapidly and accurately assess/process personnel requiring installation access utilizing current staffing.

READINESS
How can the Navy consolidate and streamline the tracking and reporting process to accurately report the manning and readiness level of the Navy, while also maintaining classification and operational security concerns?

MAINTENANCE DATA
The Navy needs a way to predict maintenance actions based on operational environment, current maintenance condition, class of asset, and budget in order to optimize maintenance schedules, manpower, and logistics.

STREAMLINE CONTRACTING
Acquisition professionals need a transparent, auditable process to effectively accelerate acquisitions and streamline management across the life cycle of a contract.

HUMAN RESOURCES
The Navy needs a way to integrate and manage all types of MyNavyHR and external data in order to properly manage human resources and minimize errors in processing.

SMALL UNIT MANEUVER
Naval Special Warfare needs a way to identify and access personnel with critical AI skill sets to support small unit operations planning and execution.

INSTALLATION PROTECTION
USMC Base Sentries need a way to rapidly and accurately assess personnel and vehicles entering base in order to allow authorized personnel onto base in a timely manner and identify and take appropriate actions for unauthorized personnel.

ENERGY RESILIENCE

LT. COL. BRANDON NEWELL AT MCAS MIRAMAR
U.S. MARINE CORPS PHOTO BY LANCE CPL. TAYLOR BIDON

SoCal Tech Bridge

Throughout August, two energy subject matter experts (SME) of the SoCal Tech Bridge worked with AFWERX to shape and provide insights into their newest challenge, Reimagining Energy. The energy challenge is a great example of how a Tech Bridge can work with its strategic partners to create joint service benefit. Supporting energy resilience, a SoCal Tech Bridge strategic technology, Director Lt Col Brandon Newell and energy SME Joe Sanchez have become members of the Military Energy Resilience Catalyst (MERC) Cohort. MERC's objective is to accelerate the deployment of resilient energy projects on DoD installations, by providing dedicated technical assistance and facilitation services to project teams.

During an uncommon heatwave, San Diego faced potential for more rolling blackouts, Marine Corps Air Station Miramar stepped in to provide power to the region and combat the heat for the first time. MCAS Miramar was able to use its on base power generation to provide 3.3 Mega-watts of power, enough to provide power for about 2,000 homes. This event showcases the capabilities that advanced energy systems can provide to the local community as well as installation resiliency when local power is unavailable.

MCAS MIRAMAR
PHOTO BY LANCE CPL. JULIAN ELLIOTT-DROUIN

EVENTS

TECH BRIDGE WEST COAST ROADSHOW AT NSWC CORONA

TECH BRIDGE QUARTERLY WORKSHOP AT CENTRAL FLORIDA TECH BRIDGE CONCURRENT WITH OUTREACH EVENT I/ITSEC 2019

SOCAL TECH BRIDGE

5G Pitch Day
The SoCal Tech Bridge and the National Security Innovation Network hosted a pitch day in October 2020 capitalizing on the newly created 5G Living Laboratory at MCAS Miramar. The focus of the event will be for non-traditional private industry to demonstrate their technologies to local DoD stakeholders. The pitch day was sponsored by ONR Code 36 and included SoCal Tech Bridge strategic partners serving as the review and selection panel.

Unmanned Traffic Management (UTM) Collision Event
The event was held at Miramar and featured UTM technical leads and problem owner from the Office of the Secretary of Defense (OSD), NASA, Naval Information Warfare Center Pacific (NIWC-PAC), Customs and Border Protection, MCAS Miramar Air Traffic Control, the Defense Innovation Unit (DIU) and representatives for the city of San Diego.

Visual Information at Sea (VI @ Sea)
Engineers at NIWC-PAC are leading a prize challenge to effectively capture interactions between U.S. Naval vessels and adversarial units violating international maritime code of conduct. This SoCal Tech Bridge initiative is being funded by the Office of Naval Research.

VENTURA TECH BRIDGE

Innovation Discovery Event Brainstorms Commercial Applications for Fiber Optics Sensing Systems

Members of the Regional Defense Partnership for the 21st Century (RDP 21), the Economic Development Collaboration (EDC), Matter Labs, Naval Facilities Engineering Command and Naval Surface Warfare Center, Port Hueneme Division (NSWC PHD) FATHOMWERX Lab held a Regional Innovation Discovery Event via teleconference, to discuss NSWC PHD's efforts regarding Fiber Optic technologies for corrosion detection applications

PALMETTO TECH BRIDGE

Technical Challenge Webinar
Participation of NIWC Atlantic, NIWC Pacific, PMW 160, and Fleet technical staff have resulted in a detailed problem statement. Working with Contracts, RFI was generated based on the problem statement.

Review of the responses were used to better understand the state of the art in industry and academia and will be used to generate topics for the prize challenge.

NORTHEAST TECH BRIDGE PIA SIGNING


TECH BRIDGE QUARTERLY MEETING

NORTHEAST TECH BRIDGE

Tech Bridge team members conducted the Cambridge Innovation Center (CIC) Providence, Venture Café's Defense Innovation and Tech Transfer Event. The 3-hour event included networking of participants, and four panels led by moderators. Panel 1 focused on the Rhode Island Ecosystem for Defense Technology & Tech Transfer Panel 2 focused on NUWC Division Newport Tech Transfer & Resources for Small Businesses who discussed the Narragansett Bay Test Facility.
Panel 3 focused on the Primes accelerating technology & Innovation Panel 4 was flash talks demonstrating the innovation and business successes of Small Businesses

Northeast Tech Bridge Holds "Primes Workshop"
After analyzing the small business ecosystem in Boston, the Northeast Tech Bridge wanted to apply lessons learned, but account for the differences between Boston and RI/Southeastern Mass. A strategy was determined that would take advantage of the large prime contractors in the region and have them work together to support small business, especially in the area of Small Business Innovation Research (SBIR). The Tech Bridge and MassChallengeRI then held a workshop with small business/SBIR leads from Raytheon, Lockheed Martin, Huntington Ingalls, Battelle, General Dynamics/Electric Boat, and BAE. All in attendance embraced the concept of working together and potentially forming a "401 Primes" Cohort to shepherd small businesses through the SBIR process and work together to propose future SBIR topics.

MIDWEST TECH BRIDGE

Midwest Tech Bridge Hosted a Virtual Tech Demo 31 March 2020
140 participants from industry, government, and academia
11 presentations from 24 panelists who communicated their cutting-edge technologies that align to NSWC Crane technical areas
114 connections made as a result of the Tech Demo

CENTRAL FLORIDA TECH BRIDGE

Virtual Procurement Administrative Lead Time (PALT), Orlando FL.
The Naval Air Warfare Center Training Systems Division (NAWCTSD) held a virtual PALT which was attended by 100+ people. The PALT is an update on any announced acquisitions, and is one of many industry outreach events the Command hosts. Instead of allowing COVID-19 to disrupt the Command's Industry Outreach, NAWCTSD rapidly pivoted from a live event to a virtual event to ensure continued communication and collaboration with our Industry Partners on our $1.5B acquisition opportunities.

The Training & Simulation Industry Symposium (TSIS), June 17-18, 2020 provides an opportunity for all four military services to provide their Long Range Acquisition Forecast (LRAF) to industry, in modeling, simulation, training and human performance. The Central Florida Tech Bridge collaborated on 3 industry lead panels; Private Sector Funding, Florida's High-Tech Corridor Fueling Innovation with Capital and Talent, and Contract Vehicles for Innovation with OTA Consortia Managers from the USA, USN and USMC. ASN RD&A, Mr. "Hondo" Geurts was the Keynote speaker.

CAPITAL TECH BRIDGE

Pre-solicitation Virtual Conference
The Capital Tech Bridge and the NSWC Carderock Corrosion and Coatings Engineering Branch, Small Business Deputy & Contracting personnel hosted the virtual Pre-Solicitation Conference for the Corrosion Control Assistance Teams (CCAT) on Thursday, June 25, 2020. This joint effort resulted in NSWCCD virtually engaging 64 different companies with vital information on Carderock's mission and small business goals, as well as the upcoming CCAT follow on contract solicitation. Attendees included businesses from multiple geographic locations and of many sizes, including a large number of non-traditional small businesses. Events like this increase the opportunity for multiple competitive contract package bids, ultimately providing the best value for the government. The CCAT program is a Painting Center of Excellence program under the program management of NAVSEA 05P. CCAT is a ship self-help program designed to support ships force efforts to perform corrosion control projects through the 4Ts: Training, Technical Expertise, Tools, and Technology Introduction.

"University Day" event highlighting summer faculty & internship opportunities across the Navy

AGILITY SUMMIT

VIRTUAL

OVER 400 ATTENDEES

NavalX, Tech Bridges, Naval Junior Officers Council (NJOC), and OPNAV N73 Strategic Warfighting Innovation Cell (SWIC) held a week long Agility Summit, attended by over 400 people, that featured workshops on PIAs, OTAs, Partnering, Communication Best Practices, and a Challenge to solve Fleet Issues.

Agile Contracting Mechanisms - Hosted two days of workshops on two key mechanisms for partnering with the private sector and acquiring technology: Partnership Intermediary Agreements and Other Transaction Authorities.

Communications – Hosted workshops and discussions highlighting tools available for communicating more effectively with our private stakeholders as well as on our internal, classified systems.

Partnering Workshops - Used the Innovation Pipeline to map out accelerated programs across the Department of the Navy.

AGILITY SUMMIT CHALLENGE

Agility Summit Challenge winners, "The Annapolis Agility Team" from United States Naval Academy (pictured) created their solution to a fleet challenge on Institutional Knowledge and pitched it to Naval leadership. The winning student team received funding to move forward with their application through the TechSolutions program run by ONR Global.

Competitors: "Y33t Fl33t" and "The Annapolis Agility Team" from United States Naval Academy, "IHIYGI" from NIOC Texas, and "Institutionally Challenged" from NPS.

NJOC Facilitators: Adam Johnson, R. Craig Veech, John-Rex Spivey, Destini Henderson, and Kenneth Taylor.

AGILITY SUMMIT

POWERED BY NAVALX

VIRTUAL

FEATURED GUEST
JAMES "HONDO" GEURTS
ASN(RDA) 2017-2020

INNOVATING IN A LARGE ORGANIZATION
SEASIDE CHAT

FEATURED GUEST
STEVE BLANK
ENTREPRENEUR & LEAN STARTUP DEVELOPER

AGILE CONTRACTING METHODS

INNOVATION PIPELINE PANEL

COMMUNICATIONS BEST PRACTICES

CHALLENGE PITCHES FROM STUDENT TEAMS

NPS TEAM
"INSTITUTIONALLY CHALLENGED"

US NAVAL ACADEMY TEAM
"Y33T FL33T"

NIOC-TEXAS TEAM "IHIYGI"

CHALLENGE WINNER ANNOUNCEMENT

NJOC CHALLENGE FACILITATORS

ADVANCED MATERIALS & ADDITIVE MANUFACTURING

U.S. NAVY PHOTO BY SHAYNA GOSNEY

NORTHWEST TECH BRIDGE MANUFACTURES PERSONAL PROTECTIVE EQUIPMENT (PPE) WITH ADDITIVE MANUFACTURING TECHNOLOGY

Additive Manufacturing Grand Challenge with Ventura Tech Bridge

The "Hack-a-thon" type challenge held via Microsoft Teams, aimed to introduce Additive Manufacturing (AM) to the wider PHD In-Service Engineering Agent (ISEA) workforce as well as increase the command's use of AM to meet program and fleet requirements. As ISEAs are responsible for modernizing technology within Navy systems to improve ships' reliability, maintainability and readiness, AM is a promising technology in its mission of fleet support. The event challenged engineers, technicians and logisticians to find parts or components that can be 3D printed to minimize inventory, provide the Navy a new source of low-cost items, and eventually be 3D printed on ships in the near future to nearly eliminate the current timeline to get replacement parts.The AM program through NIWC-PAC is funded through a $15M Congressional Add.

Northeast Tech Bridge Materials Innovation Challenge – Award to Implementation

With funding from National Institute of Standards and Technology's Manufacturing Extension Partnership (NIST MEP), the Northeast Tech Bridge created the Materials Innovation Challenge, a competitive program that matches advanced materials companies with research and development (R&D) needs with University of Rhode Island professors Arun Shukla, Sumanta Das, and Helio Matos — three of the most preeminent advanced materials researchers in the country — to complete funded projects. The Challenge supports research, validation, and testing projects with the University of Rhode Island's Dynamic Photomechanics Laboratory and the Multiscale & Multiphysics Mechanics of Materials Research Laboratory. More than 30 companies attended the Materials Innovation Challenge's launch webinar in September, and 401 Tech Bridge received 11 proposals from across the country and Canada, with companies proposing medical, aerospace, infrastructure, undersea, and defense-related applications. Three awards of $35,000 were announced in late December 2020, and the projects will be completed between January and August 21.

Additive Manufacturing for Expendable Ship Building

On July 21 the Naval Information Warfare Center- Pacific and Marine SYSCOM demonstrated its full-scale testing of prototypes for the expendable ship to shore connector program at AAV development center Camp Pendleton. The demonstration showcased additive manufactured 3D printed prototypes capable of ship to shore movement of personnel via the rapid forward manufacture of an expendable aluminum floating platform. The SoCal Tech Bridge kicked off its strategic engagement with industry partner Siemens Engineering and SBIR partner Big Metal Additives at the event. The AM program through NIWC-PAC is funded through a $15M Congressional Add.

ELEMENTAL EXCELERATOR

ELEMENTAL EXCELERATOR

TEAMING WITH PRIVATE CAPITAL

New EEX cohort company Ampaire's hybrid electric aircraft became the first to conduct test flights on an actual commercial airline route, flying from Maui's Kahului airport to Hana and back on a single charge.

PHOTO COURTESY OF ELEMENTAL EXCELERATOR

ELEMENTAL EXCELERATOR GETS CONNECTED INTO THE HAWAII TECH BRIDGE!

Elemental Excelerator supports U.S. businesses and academic institutions in transitioning innovative research and development to the commercial marketplace in the U.S. and Asia-Pacific by applying the technology accelerator model to address energy innovation, climate change, and resilience. The development of the current accelerator model is designed to support the Office of Naval Research's goals of promoting commerce and partnerships in the Asia-Pacific region through advancements in alternative energy, technology development, and education.

To date, with the support of the Office of Naval Research, Elemental Excelerator has awarded over $40 million to 117 startups, funded more than 60 projects, and attracted partners from philanthropy, government, and industry. Beyond the scope of providing commercial assistance to companies progressing through the accelerator model, Elemental has positioned itself as a market leader by delivering key market insights and case studies about regional project deployments and by publishing authoritative industry reports designed to support innovation.

117 Portfolio Companies

$2B+ Private Capital Invested in Portfolio Companies

71 Demonstration Projects

UNMANNED SYSTEMS

PHOTO BY JOHN F. WILLIAMS

U.S. NAVY PHOTO BY BOBBY CUMMINGS

Southern Maryland Tech Bridge

The SOMD Tech Bridge through our IMPAX PIA assisted with the successful completion of a tactical resupply unmanned aircraft system (UAS) fly-off prize challenge held Jan. 27-31 at Yuma Proving Ground, Arizona, to evaluate existing small UAS and their autonomous aerial delivery capability for the Marine Corps.

Six vendors competed for first, second and third place based on a series of criteria and operational flights. SURVICE Engineering will receive $100,000 for first place; Chartis Federal will receive $75,000 for second; and Autonodyne will take home $50,000. Other participants included AirBuoyant, Bell Textron and Pacific Aerospace Consulting.

The project is designed to seek an autonomous unmanned system that can transport at least 60 pounds of cargo in various configurations commonly found in Marine company/platoon/squad resupply operations (ex: 5-gallon water can, ammo can/case, Meals-Ready-to-Eat (MRE) case) through a 10-kilometer radius.

U.S. NAVY PHOTO BY DAVID STOEHR

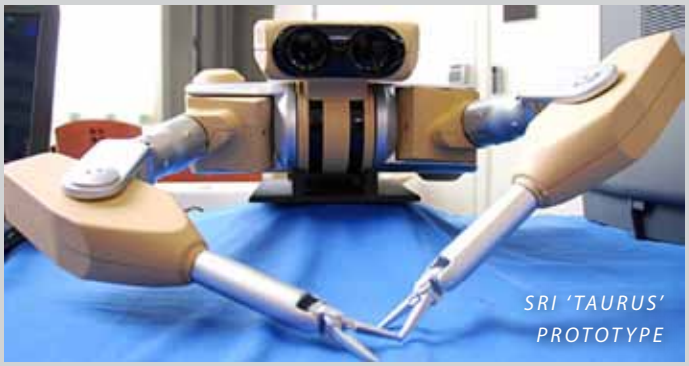
FUELED OPS DEMO DAY
PHOTO BY ROBOTIC RESEARCH

Central Tech Bridge

In support of Naval Postgraduate School's Information Systems Curriculum, the Central Coast Tech Bridge is enabling classroom research and a student project to develop a telemedicine architecture for integration with SRI's Taurus robot: Partnering with SRI to provide a full system's architecture for telemedicine and Explosive and Ordnance Disposal operations. The key steps are to move from a classroom project to a thesis/capstone project.

SATLAS Student Project
As the pilot cohort of Naval Postgraduate School's Applied Design for Innovation curriculum nears graduation, one student team has leveraged the Central Coast Tech Bridge to advanced their project. SATLAS, the Semi-Autonomous Threat Learning Alert System, was developed to address lack of situational awareness on the battlefield in small unit maneuver due to lack of organic ISR assets. The resulting solution was the concept for a small system that allows for processing on the edge, is platform agnostic, and uses object recognition and autonomous navigation technologies to minimize the impact to the operator.

The project will continue to develop further with a second student team in 2021. Through TB collaborations, this project secured $250,000 from ONR to mature the concept and develop a prototype for testing and evaluation. As the project gained momentum, a second $250,000 was provided to the team by USSOCOM to allow for industry collaboration on some of the hardware/software components specific to this use case. Once this work is complete in early 2021, the next student team set to continue the effort will finalize the prototype with the intent of testing and evaluation in Spring 2021. Throughout the course of this project, the teams have been working with the US Army's Short Range Reconnaissance (SRR) program office and other government stakeholders to ensure feasibility and desirability of the project. Other interested stakeholders include USSOCOM, JSOC, and DIU, among others.



SRI 'TAURUS' PROTOTYPE

SoCal Tech Bridge

FUELED Ops: Unmanned Logistics Systems (ULS)
SoCal Tech Bridge with Installation Next developed this program focused on leveraging commercial innovation for prototyping and requirement development of air and ground ULS. Year 1 culminated in July with a virtual demonstration of teaming ground and air autonomous systems conducting multiple resupply missions. This demonstration is enabled by OSD Operational Energy, CCDC-Armament Center, and DIU. Results of market research/forecasting of commercial innovation in air/ground ULS and Modeling & Simulation of ULS on the battlefield in the Pacific were shared. In addition, a Design Think Workshop was held for industry/DOD partners to reimagine the future of unmanned logistics.

L.A.A.N.C. UAS Traffic Management (UTM)
MCAS Miramar is one of four installations across DOD piloting the roll-out of the FAA's Low Altitude Authorization and Notification Capability (LAANC) system, which simplifies the process to create a flight plan through a digitally automated airspace authorization for public UAS. This pilot provides critical understanding of dynamic UAS airspace management to NIWC-PAC Principle Investigators and supports the development of tactical automated and dynamic UAS controls with DIU and AirMap.

Northwest Tech Bridge

Northwest Tech Bridge works with Washington State and DOE to form AAMP

AAMP, Adaptive Autonomous Manufacturing Partnership is a Northwest based team of top-tier industry, academic, government, and non-profit partners focused on advancing autonomous tech. AAMP applied for the DOD Office of Economic Adjustment Grant to become a critical national defense manufacturing community for adaptive autonomy technologies.This partnership will mobilize top-tier organizations in the Northwest region around the development of key DOD technologies.

OUTREACH & STEM

PRE-ENGINEERING PROGRAM FOR LOCAL K-8 STUDENTS

VENTURA TECH BRIDGE

NSWC Port Hueneme Division promotes internship and STEM opportunities. In June 2020, FATHOMWERX (Ventura Tech Bridge) opened its doors to local academic leadership as the command's latest step in creating future collaborations, partnerships and potential job candidates with local academia. NSWC PHD invited the group to highlight internship and job opportunities available to college students seeking STEM degrees and asked STEM Coordinator Dr. Ramon Flores (pictured) to lead the discussions

INLAND EMPIRE TECH BRIDGE
U.S. NAVY PHOTO BY GREG VOJTKO

NUWC KEYPORT
U.S. NAVY PHOTO BY ERIC M. BUTLER

SoCal Tech Bridge

Rapid Capability Development for a Cyber-effective Navy
Arizona State University's Laboratory for Energy and Power, a foundational partner for STEM education with the SoCal Tech Bridge, will expand their role with the Office of Naval Research after winning a second STEM award. The Rapid Capability Development for a Cyber-effective Navy program provides 6 hands-on cyber training programs to approximately 175 participants over a one year period, with target audiences consisting of 50% Naval ROTC students, veterans, and active duty and 50% other affiliated military groups including Air Force ROTC and Army ROTC. Trainees will be better equipped to maintain mission readiness and be resilient to known and unknown cyber threats.

Northeast Tech Bridge

NUWC Newport Launches S&T Broad Agency Announcement (BAA)
The Northeast Regional Tech Bridge worked with the NUWC Newport to launch a BAA for Science and Technology (S&T). The contracts department led the effort to solicit topics from the NUWC's technical experts and posted the BAA. NUWC's S&T BAA had been dormant for years, and the hope is that, through the Tech Bridges, the program will Focus on Dual Use Technologies and Industry Outreach.
Dual-use Ventures Course hosted by the MIT innovation initiative (MITii) provided a great template for how companies can combine SBIR and commercial funding to launch a small business.

Tech Bridge Team Launches Academic Coalition
The Northeast/401 Tech Bridge Academic Coalition goal is to discuss their programs and practices to collaborate with start-ups and entrepreneurs in order to promote and accelerate innovation development and implementation in fielded applications. Representatives include University of Rhode Island, UMass Dartmouth and the Marine and UnderSea Technology (MUST) Research Center, UMass Lowell, UConn - Senior Associate Dean School of Engineering), and the National Institute for Undersea Vehicle Technology - NIUVT.

Capital Tech Bridge

In the fall, the Capital Tech Bridge held a virtual webinar on the Naval Engineering Education Consortium (NEEC) Program. The NEEC Program sponsors research projects at colleges and universities that target the Navy's technology needs and cultivates a world class Naval Engineering workforce via student participation.

Central Florida Tech Bridge

Flight Lab Aviation After School Adventures
Funded by the Office of Naval Research, the Naval Air Warfare Center Training Systems Division in conjunction with the Orlando Science Center and TEQ Games have developed a high quality after school aviation themed Science, Technology, Engineering, and Mathematics (STEM) program. The Flight Lab has reached 11,820 people since 2018.

Gains in the Education of Mathematics and Science (GEMS) Collaborative effort between:

- Local Army Research lab
- NAWCTSD
- Central Florida Tech Bridge
- MS&T industry experts

The Orlando 2020 GEMS Virtual STEM Camp took students from reality to virtual reality, and back, in a remote learning environment. Students participated in design thinking with near peers and Subject Matter Experts (SME), team collaboration, engineering, testing, evaluating, researching, gaining inspiration, and pitching innovative VR/AR/XR product designs. The two, one week prototyped camps hosted a total of 46 middle school students: 21 males, 25 females, 4 female counselors from FL, GA, NC, and LA. Counselors used Google Classrooms learning management system and delivered or mailed engineering kits to students.

NAWCTSD & CENTRAL FLORIDA TECH BRIDGE SIMULATION STUDENT DAY
U.S. NAVY PHOTO BY DOUG SCHAUB

SOCAL TECH BRIDGE

VISION STATEMENT

Focused on leveraging the Southern California convergence of Installations, Industry, and Research to unlock emerging technology through non-traditional partnerships. The SoCal Tech Bridge is built around the philosophy that collaborative markets can be established that enable mutually beneficial opportunities for DOD and Commercial Industry to partner.

COMMANDS

Naval Information Warfare Center- Pacific (NIWC-PAC)
Marine Corps Installations West (MCI-West)
Naval Information Warfare Systems Command (NAVWAR)

PARTNERSHIPS

Customs & Border Protection (CBP)
City of San Diego
San Diego Association of Governments (SANDAG)
UC San Diego
Arizona State University
Verizon
Qualcomm
Robotic Research
US Ignite
Local Motors
Anduril
Siemens
Deloitte
Schneider Electric
Airmap

TECHNICAL AREAS

KEY INITIATIVES

- 5G Living Lab
- Unmanned Logistics Systems Iterative Design
- Installation Protection AI Challenge
- Autonomous Vehicle Proving Grounds

AUTONOMOUS VEHICLE TESTING ON MCAS MIRAMAR
PHOTO BY CPL. JAKE MCCLUNG

100% ELECTRIC NIKOLA RECKLESS VEHICLE DEMO ON MCAS MIRAMAR
PHOTO BY SKY LARON

SENTRY TOWER TESTING AND DEMONSTRATION ON MARINE CORPS BASE CAMP PENDLETON
PHOTO BY CPL. JUAN BUSTOS

LEADERSHIP

LTCOL BRANDON NEWELL, USMC

DIRECTOR | SOCAL TECH BRIDGE

HOME COMMAND: Marine Corps Installations West (MCI-West)

As the first Director of Technology & Partnerships for the Marine Corps' Installation Next program and Director of the SoCal Tech Bridge, Brandon is a visionary that pushes the boundaries in technology development and Marine Corps applications. His efforts include collaborations with Verizon for 5G, Qualcomm for connected vehicles, Customs & Border Protection for computer vision, and the FAA & City of San Diego for drone applications. In his free time, he enjoys camping with his wife and kids and surfing on his paddleboard.

MARISSA BRAND

STEERING COMMITTEE: NEXTSTEP | SOCAL TECH BRIDGE

HOME COMMAND: Naval Information Warfare Center Pacific

Marissa has a degree in Ocean Studies with a minor in Environmental Sciences from University of San Diego, CA and has over 25 years of experience with NIWC Pacific as a scientist for Code 71750. Currently, she is the Program Manager for ONR's Energy, Systems, Technology, Evaluation Program (NEXTSTEP) overseeing 50 projects from NAVFAC EXWC, NPS, and SSC Pacific. She has thirteen years direct experience in avian radar research applications and provides overall technical coordination. She is the PI for ESTCP's "Integration and Validation of Avian Radars" study, NESDI's avian radars study to aid BASH and Natural Resource managers, and PI and Technical Web Developer for Cultural and Natural Resources Information System (CaNRIS) Project. She also has experience as a Database Administrator, Applications Designer, Web Site Developer, and Technical lead. Outside of work Marissa enjoys instructing mountain bikers in San Diego, mountain biking, running and hiking along Big Bear Lake.

ANA BORJA

STEERING COMMITTEE: NEXTSTEP | SOCAL TECH BRIDGE

HOME COMMAND: Naval Information Warfare Systems Command

Ana has over 25 years of experience as a Human Factors Engineer and works at Naval Information Warfare Systems Command as the Human Systems Integration (HSI) Technical Warrant Holder within the Enterprise / Systems Engineering technical domain. She has also served as a Senior Research Scientist at the Space & Naval Warfare Systems Center Pacific conducting analysis to develop warfighter-centric and innovative Naval systems and worked in industry ad a Senior Systems Engineer / Human Factors Engineer for Raytheon C3I, Intel, Xerox, Epson, Federal Aviation Administration and GE Information Services.

JOE SANCHEZ

EMERGING TECHNOLOGY PORTFOLIO LEAD | SOCAL TECH BRIDGE

HOME ORGANIZATION: Energetics Technology Center

Joe's duties include product feasibility assessments, program execution strategies, and academic engagement lead. He graduated Summa Cum Laude from Arizona State University with a B.A. in Global Studies and a Masters of Business Administration degree. He is also a graduate of the International Business Program from the Vienna School of Economics and holds certificates from ASU in energy and sustainability. Joe served in the Marine Corps for five years as an infantryman before ending his active service as an (E-5) Sergeant. During his service, he deployed four times to include multiple combat tours to Afghanistan and Yemen.

VENTURA TECH BRIDGE

VISION STATEMENT

The Ventura Tech Bridge facilitates strategic partnerships necessary for accelerating innovation and capabilities to the fleet and warfighter while serving as a regional resource for technical innovation and capability transition and transfer. Geographically located waterfront in the Port of Hueneme at Naval Base Ventura County, the Ventura Tech Bridge serves as a strategic partner for the purposes of education, prototyping, testing, and evaluation of developing technologies in the port and maritime domains.

COMMANDS

Naval Surface Warfare Center, Port Hueneme Division

Naval Engineering and Expeditionary Warfare Center

Naval Air Warfare Center, Weapons Division

PARTNERSHIPS

FATHOMWERX

Economic Development Collaborative Ventura County (EDC-VC)

The Port of Hueneme

Matter Labs

Regional Defense Partnership for the 21st Century (RDP-21)

California State University Channel Islands

Ventura County Office of Education

Oxnard Harbor District

AT-SEA TESTING OF
ADVANCED NAVAL TECHNOLOGIES

MIXED REALITY TECHNOLOGY
FOR MAINTENANCE AND REPAIR

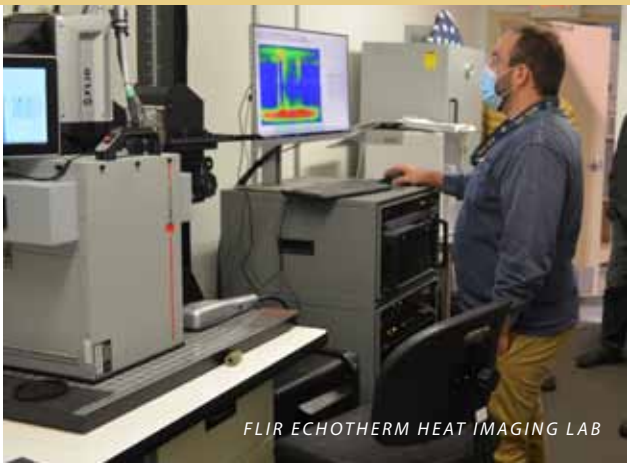
LEADERSHIP

ALAN JAEGER DIRECTOR | VENTURA TECH BRIDGE

HOME COMMAND: Naval Surface Warfare Center, Port Hueneme Division

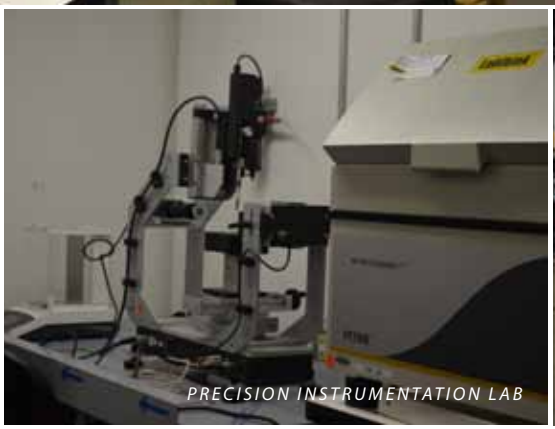
Alan is the Ventura Tech Bridge Director and serves as the Research and Technology Applications Manager (ORTA) for the Naval Surface Warfare Center, Port Hueneme Division where he manages the research and technology applications related to intellectual property and technology transition for a federal laboratory of over 2,500 engineers, technicians and logisticians. Alan is a technology management professional and has worked for the Federal, State and Local Governments as well as the academic and private sector; providing him with a unique perspective on organizational perspectives, interfaces and information sharing.


UNMANNED AERIAL VEHICLE TESTING


FLIR ECHOTHERM HEAT IMAGING LAB


RAPID PROTOTYPING CAPABILITY


ADVANCED ADDITIVE MANUFACTURING


PRECISION INSTRUMENTATION LAB


INNOVATION LAUNCHPAD AT NAS POINT MUGU

TECHNICAL AREAS

- Land, Sea, and Air Systems
- Advanced Materials, Coatings and Additive Manufacturing
- Testing and Evaluation of Unmanned / Manned Systems
- Shore, Afloat, Undersea, Expeditionary Force, Energy and Environmental


FATHOMWERX INNOVATION LAB

KEY INITIATIVES

- Advanced Naval Technologies Exercise (ANTX) Coastal Trident
- Rust-A-Thon materials coating challenge
- In-Service Engineering of the Future Initiative
- Prototype, Fabrication and Testing
- Innovation Discovery Events


CLEAN ROOM FOR GE CONCEPT LASER 3D PRINTER

KEYPORT, WASHINGTON

NORTHWEST TECH BRIDGE

VISION STATEMENT

The Northwest Tech Bridge will serve as a 'super connector' throughout the Pacific Northwest by supporting the commercialization of cutting edge technology with a focus on sustainability, providing access to workforce development, and advancing the competitiveness of local small businesses.

COMMANDS

Navy Undersea Warfare Center, Division Keyport

Puget Sound Naval Shipyard

Whidbey Island Naval Air Station

PARTNERSHIPS

Washington State Department of Commerce

DOE Pacific Northwest National Lab

University of Washington

Washington State University

Impact Washington (NIST MEP)

Olympic College

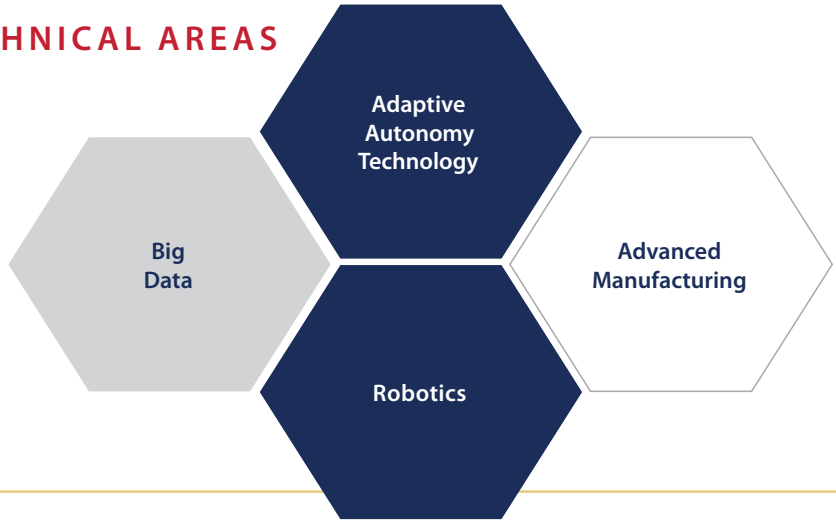
ANSYS

Amazon

Boeing

Microsoft

TECHNICAL AREAS

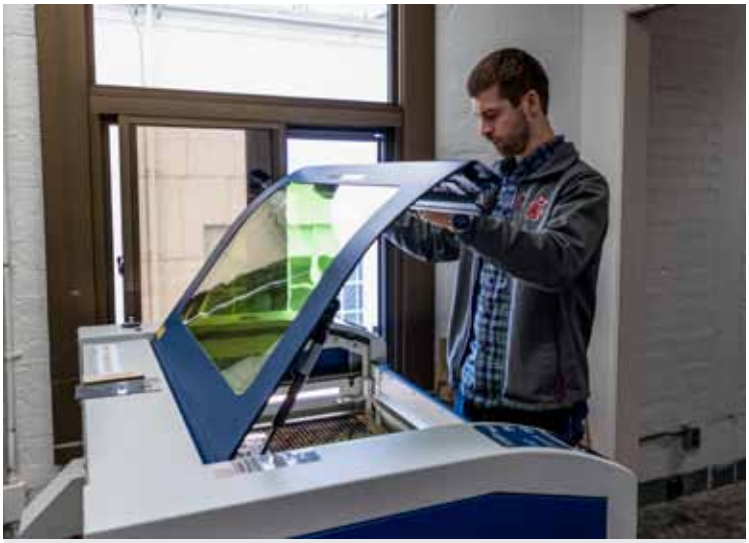


KEY INITIATIVES

- Adaptive Autonomy Manufacturing Partnership
- Range of the Future NIPA
- DON COVID-19 Advanced Manufacturing Response
- Naval Enterprise Sustainment Technologies Team (NESTT)
- UUV Development with UUVRON ONE

ROBOT TESTING ON SUBMARINE HULL
U.S. NAVY PHOTO BY JEB FACH

STEM OUTREACH
U.S. NAVY PHOTO BY ERIC BUTLER



KEYPORT INNOVATION CENTER
U.S. NAVY PHOTO BY SHAYNA GOSNE

LEADERSHIP

JOHANNES SCHONBERG

DIRECTOR | NORTHWEST TECH BRIDGE

HOME COMMAND: Naval Undersea Warfare Center, Division Keyport

Johannes Schonberg is the NW Tech Bridge Director based out of NUWC Division Keyport in Keyport, Washington. He brings experience as an active duty Sailor, entrepreneur, non-profit Executive Director, military veteran community organizer, and Navy Reservist to his work which supports a multi-modal approach to supporting innovation within the Department of Navy. Johannes has a B.S. from USNA and M.S. in Global Leadership from University of San Diego.

MONTEREY, CALIFORNIA

CENTRAL COAST TECH BRIDGE (C2TB)

VISION STATEMENT

The C2TB will leverage the Naval Postgraduate School's diverse student body, world-class schools that oversee 77 Master's and 16 doctoral degree programs, 35 Centers, 101 labs and a variety of partnerships across all five warfighting domains to provide new avenues for Technology Development to solve DON, DoD, and USG problems. This will be achieved through increasing partnerships with non-traditional partners – startups – small businesses – non-profits – academia and private capital.

COMMANDS

WARCOM

SOCOM

MARFORCYBER

USASOC

PARTNERSHIPS

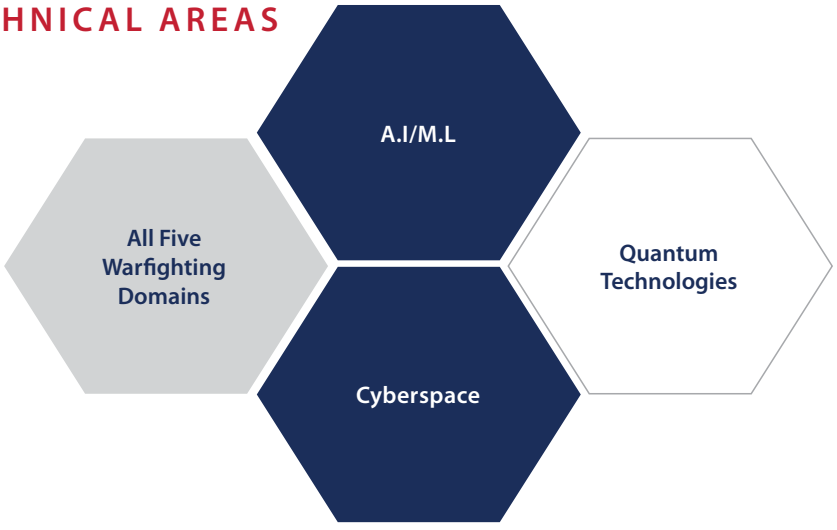
DEFENSEWERX

ARMY CYBER INSTITUTE

ACADEMIC VENTURE EXCHANGE

AFWERX

TECHNICAL AREAS



KEY INITIATIVES

- Increase connections to Universities
- Increase connections to non-traditional businesses and private capital
- Provide prototypes for transition to solve DON capability gaps

NAVAL POSTGRADUATE SCHOOL

LEADERSHIP

CHRISTOPHER E. MANUEL

DIRECTOR | CENTRAL COAST TECH BRIDGE

HOME COMMAND: Naval Postgraduate School

Christopher E. Manuel is the California Central Coast Tech Bridge Director and the Associate Dean of Research for Technology Development at the Naval Postgraduate School. Prior to joining NPS, Chris initiated two start-up technology companies. He also worked for Sierra Nevada Corporation as a Corporate Vice President for Command, Control, Communications, Computers and Networks (C4N). Mr. Manuel is a US Army Special Forces Chief Warrant Officer 4 with 33 years of service and 15 years of special operations experience in multiple countries including Namibia, Mozambique, Kuwait, Rwanda, Bosnia, and Afghanistan.

MEGEN SCHLESINGER

DEPUTY DIRECTOR | CENTRAL COAST TECH BRIDGE

HOME COMMAND: Naval Postgraduate School

Megen Schlesinger, MBA, is currently the Deputy Director of the Central Coast Tech Bridge at the Naval Postgraduate School in Monterey, California. Megen is responsible for providing strategic advisement to NPS regarding collaboration between industry, academia, and government to improve Department of Defense technology. Her expertise in non-traditional defense acquisition and technology-focused small business are leveraged to bring non-traditional players to NPS's technology ecosystem and to accelerate technology transfer at NPS. Megen's previous experience includes serving in the US Army as a Military Intelligence Officer for 11 years and as Managing Director of a 501(c)(3) non-profit organization that served as a Partnership Intermediary to the United States Air Force Academy.

NORCO, CALIFORNIA

LAKE NORCONIAN
PHOTO BY GREG VOJTKO

INLAND EMPIRE TECH BRIDGE

VISION STATEMENT

Anchored by Naval Surface Warfare Center Corona, the Inland Empire Tech Bridge will be the catalyst for the region to develop as a national innovation hub and will drive the region's technology-based economic development efforts.

MISSION STATEMENT

Connect DoD and federal agencies with small business, industry, academia, and governments in the innovation ecosystem to drive new capability to both the federal and commercial sectors using a comprehensive, dual-use technology development approach.

COMMANDS

Naval Surface Warfare Center, Corona Division

PARTNERSHIPS

Riverside County
Riverside County Economic Alliance
DoD Procurement Technical Assistance Center
California Manufacturing Technology Consulting (NIST MEP)
Ventura Economic Development Collaborative
ExCITE Startup Incubator
EPIC Small Business Development Center
Riverside County Workforce Development Board
Greater Riverside Chambers of Commerce
Corona Chamber of Commerce
Riverside Military Affairs Council
University of California, Riverside
Cal Baptist University
Cal Poly Pomona
Cal State San Bernardino
Riverside Community College District
Norco College
Science and Technology Education Partnership

TECHNICAL AREAS

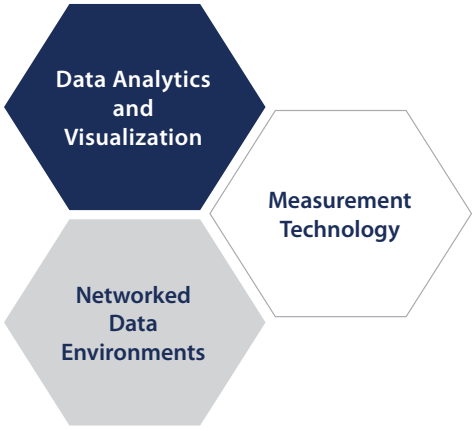


PHOTO BY GREG VOJTKO

KEY INITIATIVES

- Advanced and Secure Mobile Telecommunications
- Automatic Speech Recognition in Tactical Environments DevSecOps in a Cross-Domain Environment
- Integrating Data Analytics and Automation into Technical and Business Domains
- Ship Maintenance Data Analytics and Predictive Maintenance Quantum Metrology

NETWORKED DATA ENVIRONMENTS
PHOTO BY GREG VOJTKO

MEASUREMENT TECHNOLOGY
PHOTO BY GREG VOJTKO

DATA ANALYTICS
PHOTO BY NATHAN FITE

STEM OUTREACH
PHOTO BY GREG VOJTKO

TROY CLARKE

DIRECTOR | INLAND EMPIRE TECH BRIDGE

HOME COMMAND: Naval Surface Warfare Center, Corona Division

Troy Clarke started with Naval Surface Warfare Center, Corona Division in 2007 as the Director of Public and Congressional Affairs, and now serves as the Strategic Advisor and Tech Bridge Director, where he's overseen community outreach, communication, and strategic engagement for the command. Prior to joining the Navy, Clarke worked for the U.S. Congress on Capitol Hill and in California. He's used his scientific background and experience to assist grade-school students in pursuing STEM careers and cofounded and served as the founding President/CEO of the Science and Technology Education Partnership (STEP).

JENNIFER STEWART

SBIR PROGRAM MANAGER / TECH TRANSFER OFFICER | INLAND EMPIRE TECH BRIDGE

HOME COMMAND: Naval Surface Warfare Center, Corona Division

Jennifer Stewart serves as the Office of Research and Technology Applications (ORTA) representative as well as the Small Business Innovative Research (SBIR) program manager for Naval Surface Warfare Center, Corona Division. In these roles, Jennifer Stewart acts as a broker, connecting Corona Division's scientists and engineers with a variety of partners within academia and industry to support cooperative efforts. Stewart, a graduate of California Baptist University, Riverside, Calif., joined NSWC Corona's Product Engineering Assessment Department in 2003. In addition to serving as ORTA and SBIR manager, Stewart supports the Federal Laboratory Consortium as Corona Division's voting member and previously served as the Far West Regional Coordinator for several years. In this role Ms Stewart travelled the country meeting with start-ups and small businesses providing education and information of Federal Laboratory partnership opportunities.

CRANE, INDIANA

MIDWEST TECH BRIDGE

VISION STATEMENT

The Midwest Tech Bridge serves to encompass a vibrant innovative ecosystem closely aligned to Navy and Marine Corps interests that accelerate the development and transition of technology to Department of Defense (DoD) end users by intentionally connecting problem owners with solution providers.

COMMANDS

Naval Surface Warfare Center, Crane Division

PARTNERSHIPS

IN3 - Indiana Innovation Institute, PIA

S2MARTS - Strategic and Spectrum Missions

Advanced Resilient Trusted Systems, OTA

Indiana University

Purdue University

University of Notre Dame

National Security Innovation Network

LEADERSHIP

ANNE FIELDS DIRECTOR | MIDWEST TECH BRIDGE

HOME COMMAND: Naval Surface Warfare Center, Crane Division

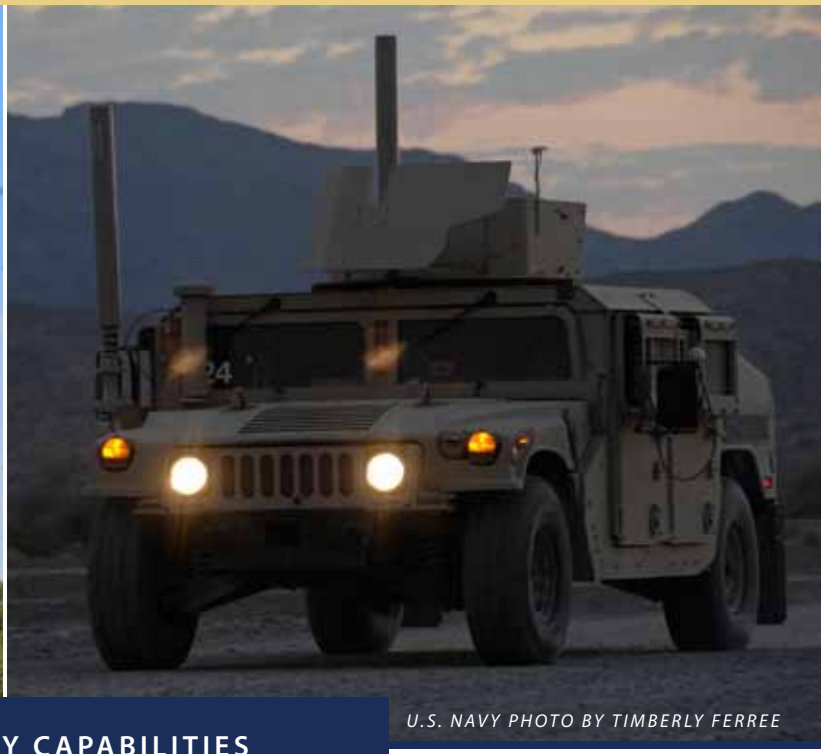
Anne was born and raised in Bloomington, Indiana. Her undergraduate degree is from the United States Military Academy (USMA) at West Point in law and environmental engineering. She has worked for NAVSEA as a logistician and project manager within the Radar Division, and was the Multi-Sensor Integration Branch Manager within the Maneuver Surveillance and Engagement Division supporting multiple DoD customers on expeditionary ground based intelligence, surveillance and reconnaissance (ISR) systems.

JULIE SHAFF, PH.D. DEPUTY DIRECTOR | MIDWEST TECH BRIDGE

HOME COMMAND: Naval Surface Warfare Center, Crane Division

Julie serves as the Deputy Tech Bridge Director for the Midwest Tech Bridge, and also is the Technology Transfer Agreements Lead for NSWC Crane. She has spent the last 13 years supporting NSWC Crane, providing operations research analyst support, product support lead, and project management execution. During her time at NSWC Crane, Julie spent a year working as a Product Support Manager for the Program Executive Office Integrated Warfare Systems 2 (PEO IWS2). Her greatest passion at work includes integrating and collaborating across multi-functional teams and helping develop the next generation of the workforce.

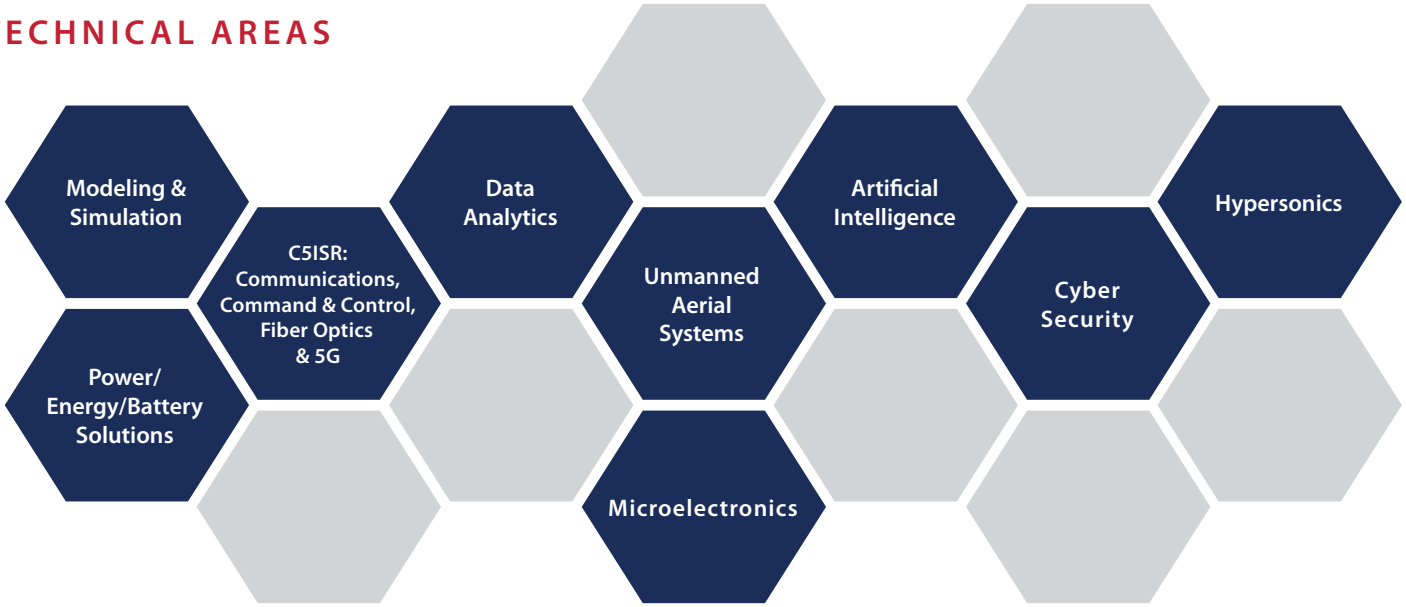
U.S. NAVY PHOTO BY LARRY SARTIN



U.S. NAVY PHOTO BY TIMBERLY FERREE

EXPEDITIONARY CAPABILITIES

TECHNICAL AREAS



KEY INITIATIVES

- Monthly Small Business events featuring organizations and opportunities within the ecosystem to assist non-traditionals with doing business with the DoD
- Technology Demonstrations from pertinent members in the external ecosystem aligned with NSWC Crane Technical Areas to NSWC Crane Midwest Tech Bridge Steering Group and subject matter experts
- Innovation Challenge and Prize Challenge administration assisting NSWC Crane teams in the Artificial Intelligence for Small Unit Maneuver (AISUM) and Lithium Ion Battery Containment Prize Challenges
- Participant in the Midwest Defense Innovation Summit and pertinent local events like Trusted and Assured Microelectronics Hackathon
- Spearheading the Cyber Physical System Collaboration and Innovation space at Westgate Academy
- Championing the NavalX Innovation Pipeline in partnership with the Indiana Innovation Institute (IN3) in order to assist NSWC Crane personnel leverage the NavalX construct to solve warfighter problems

CENTRAL FLORIDA TECH BRIDGE

VISION STATEMENT

The Central Florida Tech Bridge amplifies the Naval Air Warfare Center Training Systems Divisions already vibrant collaboration efforts to a national level, greatly enhancing the organizations ability to serve the fleet.

COMMANDS

Naval Air Warfare Training Systems Division (NAWCTSD)
Naval Support Activity (NSA) Orlando

PARTNERSHIPS

Members of Team Orlando:

- Naval Air Warfare Center Training Systems Division (NAWCTSD)
- U. S. Army Program Executive Office for Simulation Training and Instrumentation (PEO STRI)
- U. S. Air Force Agency for Modeling and Simulation (AFAMS)
- Program Manager for Training Systems (PMTRASYS)
- Marine Corps Systems Command (MARCORSYSCOM)
- Advanced Distributed Learning (ADL) Initiative
- Army Futures Command (AFC) Combat Capabilities Development Command Soldier Center
- Department of Homeland Security Science and Technology (DHS S&T)
- Veterans Health Administration Simulation Learning Education and Outreach Network (VA SimLearn)
- Army Contracting Command (ACC) – Orlando
- Army Futures Command – Synthetic Training Environment (STE) Cross Functional Team (CFT)
- Defense Health Agency (DHA) Joint Program Manager for Medical Modeling and Simulation

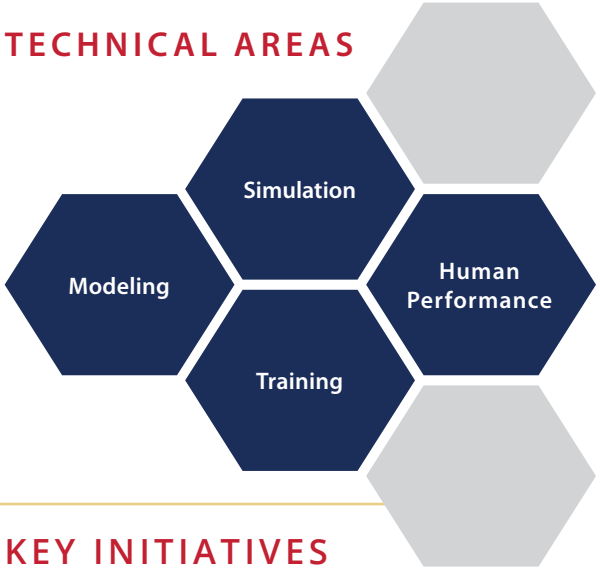
Non-Federal entities:

- Industry – National Center for Simulation (NCS)
- Regional High Tech Interests - Florida High Tech Corridor (FHTC)
- Local Government - Orlando Economic Partnership (OEP)
- Academia - University of Central Florida (UCF)

NAWCTSD Education Partnership Agreements (EPAs):

- University of Central Florida (UCF)
- Embry Riddle Aeronautical University (ERAU)
- Old Dominion University (ODU)
- University of Florida (UF)
- Florida Institute of Technology (FIT)
- Florida Agricultural & Mechanical University (FAMU)- In Process
- Orange County Public Schools (OCPS) - In Process
- Seminole County Public Schools - In Process

TECHNICAL AREAS



KEY INITIATIVES

- Monthly Large Scale Industry Engagements (100- 18,000 attendees)
- Industry Technology Capability Days
- Acquisition Symposiums - Opportunities and Processes Information Exchange
- Small Business Round Table Discussions
- Establishing PIA Partnership with University of Central Florida (UCF) Research Foundation
- Establishing first PIA meant to be joint (USN, USMC, USA and USAF)
- Establishing Central Florida Tech Grove (the physical presence of the Central Florida Tech Bridge)

NAVAL AIR WARFARE CENTER TRAINING SYSTEMS DIVISION (NAWCTSD)
U.S. NAVY PHOTO BY DOUG SCHAUB

SIMULATION STUDENT DAY
U.S. NAVY PHOTO BY DOUG SCHAUB

INTERSERVICE/INDUSTRY TRAINING, SIMULATION, AND EDUCATION CONFERENCE (I/ITSEC)
U.S. NAVY PHOTO BY: PETTY OFFICER 1ST CLASS NATHAN LAIRD | LT. CLARK ROSS

LEADERSHIP

DIANA TEEL

DIRECTOR | CENTRAL FLORIDA TECH BRIDGE

HOME COMMAND: Naval Air Warfare Center Training Systems Division

Diana has a diverse background, with a BA in Business Administration, and experience in both Logistics and Program Management, and Sustainment and Acquisition. Representing the Navy locally and nationally, she leads teams not only within the Navy, but also across all four military services. She is responsible for the monthly NAWCTSD outreach engagements, which range from 25 to 17k attendees. One of Diana's latest endeavors is the Tech Grove, a working level collaboration initiative to propagate organic collisions. The Central Florida Tech Bridge and Team Orlando exist in the physical and virtual collaboration space, breathing life into the Tech Grove.

PALMETTO TECH BRIDGE

VISION STATEMENT

The Palmetto Tech Bridge is the next step in the continuing evolution of Naval Information Warfare Center (NIWC) Atlantic's engagement with leading academic research institutions, world-class industry partners, renowned federal labs and forward-thinking state organizations. The Carolinas offer a unique blend of state-of-the-art industry, entrepreneurial spirit, American historical significance and proud maritime military tradition. Drawing on the talents from across South Carolina's Federal, industry and academic organizations, the Palmetto Tech Bridge will focus and facilitate this considerable innovative force on developing dual-use solutions to meet both national defense needs and enhance the region's economic strength with innovative commercial products.

COMMANDS

Naval Information Warfare Center Atlantic

PARTNERSHIPS

South Carolina Research Authority (SCRA)

SC Manufacturing Extension Program (NIST)

University of South Carolina

Trident Technical College

SC City Leaders- Charleston, Beaufort, Myrtle Beach

SC Department of Commerce

DOE Savannah River

SAIC

IBM

SC Business Incubator Association

TECHNICAL AREAS

KEY INITIATIVES

- Tech Challenge - Network and Data Center Intelligent Assistant (NADIA). (AI/ML/NLP), RFI Release
- Integrate DEVSECOPS environment in off-site facility
- Set up Advisory Board
- Prize Challenge

VIRTUAL REALITY ON AN USMC LAV

PHOTOS BY JOSEPH BULLINGER

ADDITIVE MANUFACTURING

UNATTENDED GROUND SENSOR IMAGERS

LNB FILTER INSTALL ON A VSAT ANTENNA

LEADERSHIP

MICHAEL MERRIKEN

DIRECTOR | PALMETTO TECH BRIDGE

HOME COMMAND: Naval Information Warfare Center Atlantic

Michael is the Regional Director for the NavalX Palmetto Tech Bridge charged with the stand-up and operation of a new Department of the Navy initiative to establish collaborative spaces outside military bases, bringing together parts of the Navy workforce with startups, small businesses, larger companies, and academia to lower traditional barriers that have hampered collaboration in the past. He is also the Manager for the Technology Transfer Office responsible for shaping and executing the Naval Information Warfare Center Atlantic's approach to Federal Technology Transfer by cultivating, developing, and sustaining partnerships with industry and academia, connecting these organizations and people in order to expand research opportunities and promote dual use technology. Michael received a B.S. in Aerospace Engineering from the Pennsylvania State University and a M.S. in Human Factors Engineering from Virginia Tech.

MID-ATLANTIC TECH BRIDGE

VISION STATEMENT

Enable the most innovative military in the world

MISSION STATEMENT

We are the super-connector, enabling collaboration across boundaries to develop better, faster and less expensive solutions for our military

COMMANDS

U.S. Second Fleet

NSWC Carderock Norfolk Detachment

NSWC Dahlgren Dam Neck Activity

NIWC Atlantic Hampton Roads Office

PARTNERSHIPS

757 Accelerate (aka 757 Collab)

Gangplank Virginia

NASA Langley

Norfolk Naval Shipyard

ACC Langley

Jefferson Labs (DOE)

TECHNICAL AREAS

KEY INITIATIVES

- Advanced Naval Technology Exercise (ANTX) Portfolio Strategy
- Pop-up coldspray facility for fleet maintenance
- Expeditionary Maritime Operations Center (EMOC) test center
- 5G for pier-side and ship-to-shore

COMMON UNMANNED SURFACE VEHICLE (CUSV)

U.S. NAVY PHOTO BY REBEKAH M RINCKEY

LEADERSHIP

CDR BOBBY "SNOCONE" HANVEY, USN

DIRECTOR | MID-ATLANTIC TECH BRIDGE

HOME COMMAND: U.S. Second Fleet

Along with a variety of experience serving the Navy as a pilot, officer, reservist, and facilitator, Bobby has an insatiable appetite for learning and sharing lessons with others. He works inside one of the largest government-operated organizations in the world to find areas where we can improve processes and remove barriers to better connect the needs of sailors and marines to those who can solve them.

MARK WILDE

NIWC-LANT LEAD | MID-ATLANTIC TECH BRIDGE

HOME COMMAND: Naval Information Warfare Center Atlantic

Mark has served as a Systems Programmer, Chief Engineer, Strategic Planner, Operations Manager, and NavalX Tech Bridge Lead for NIWC-LANT, and still learning after 37 years. One of Mark's strengths is getting groups to work together for a common goal.

JULIE STARK, PH.D.

NSWC CARDEROCK LEAD | MID-ATLANTIC TECH BRIDGE

HOME COMMAND: Naval Surface Warfare Center, Carderock Division

Julie M. Stark, Ph.D is the Science and Technology Manager for Combatant Craft for Naval Sea Systems Command Carderock Division. She is a subject matter expert in Human Factors Ergonomics, autonomy and automation, warfighter performance, unmanned systems, robotics, and human centered systems design.

ROY WEISERT

NSWC DAHLGREN LEAD | MID-ATLANTIC TECH BRIDGE

HOME COMMAND: Naval Surface Warfare Center, Dahlgren Dam Neck Activity

Roy had had nearly 50 years of DoD experience in both the operational and acquisition communities. He was also a USN/Active Duty Retired Naval Aviator before transitioning to Civil Service. Roy has worked with senior leadership across USMC and Naval Aviation and Surface Warfare enterprises.

WASHINGTON METROPOLITAN AREA

CAPITAL TECH BRIDGE

VISION STATEMENT

Connect and enable an innovation ecosystem where the Department of the Navy, private industry, academia, and state and local governments can collaborate to solve Navy and Marine Corps complex problems.

COMMANDS

Naval Surface Warfare Center Carderock Division

Naval Surface Warfare Center Dahlgren Division

Naval Surface Warfare Center Indian Head Division

Naval Research Laboratory

Marine Corps Warfighting Laboratory

Office of Naval Research

PARTNERSHIPS

TEDCO

Maryland Manufacturing Extension Partnership

Virginia Manufacturing Extension Partnership

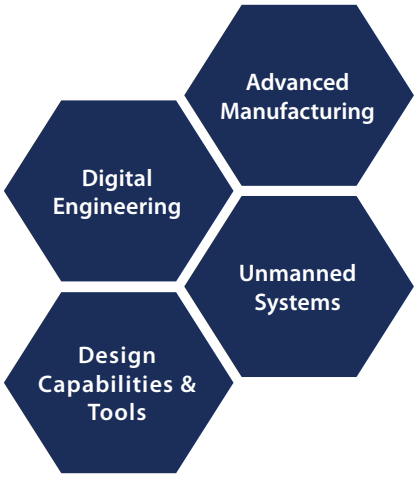
Center for Innovative Technology

MD, VA & DC Procurement Technical Assistance Centers

Maryland Department of Commerce

Montgomery County Economic Development Corporation

TECHNICAL AREAS

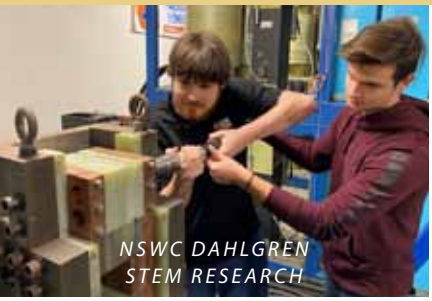


KEY INITIATIVES

- Large Scale Industry & Academic Engagements
- Monthly External Engagements
- University Day
- Naval Engineering Education Consortium Event
- AI AVENGER Maintenance Data Challenge

INTERNATIONAL SUBMARINE RACES
U.S. NAVY PHOTO BY JOHN F. WILLIAMS

SHIP HULL PHYSICS RESEARCH AT NSWC CARDEROCK
U.S. NAVY PHOTO BY JOHN F. WILLIAMS


NSWC DAHLGREN STEM RESEARCH


NSWC INDIAN HEAD VELOCITY LAB: COLLABORATIVE SPACE AND PROTOYPING LAB

LEADERSHIP

KRISTA LOSSING, PH.D.

DIRECTOR | CAPITAL TECH BRIDGE

HOME COMMAND: Naval Surface Warfare Center, Carderock Division

Dr. Lossing is an innovative and strategic technology leader who possesses practical experience constructing forward thinking complex science and technology concepts for the military services and joint warfighter. She is well connected having been a Technology Fellow at the Chief of Naval Operations Strategic Studies Group, and having led portfolios of advanced technology investments for the DoD and DON. Dr. Lossing is skilled at finding creative solutions to complex problems through collaboration, outside-the-box "Yes, and" thinking, and advocating for innovative science & technology.

AMANDA HORANSKY- MCKINNEY

NRL LEAD | CAPITAL TECH BRIDGE

HOME COMMAND: Naval Research Laboratory (NRL)

Ms. Horansky-McKinney is the Head of the Technology Transfer Office at the Naval Research Laboratory. She seeks out, develops, and nurtures relationships both with NRL's scientists and industry to bring NRL's technologies to the market. She is passionate about helping scientists collaborate with industry and academia to both provide research funding and to grow NRL technologies into viable products for Government and commercial sector utilization. She brings to the table industry experience in both business and engineering in the semiconductor and electronics sectors.

KYLE LACKINGER

NSWC DAHLGREN LEAD | CAPITAL TECH BRIDGE

HOME COMMAND: Naval Surface Warfare Center, Dahlgren Division

Kyle serves as the Collaborative Innovation Lead and Naval Surface Technology & Innovation Consortium Other Transaction Authority Portfolio Manager for NSWC Dahlgren Division Technology Office. He is a subject matter expert in electromagnetic pulse, topside design engineering, and platform integration. Kyle functioned as project lead for multiple, fast-paced projects within the Electromagnetic Effects Division of NSWC Dahlgren Division. Kyle holds a B.S. and M.S. in Electrical Engineering from Florida State University and is currently working towards the completion of a M.A. in Applied Economics from Georgetown University.

SAMANTHA GRAY

NSWC INDIAN HEAD DIVISION LEAD | CAPITAL TECH BRIDGE

HOME COMMAND: NSWC Indian Head Division

Samantha serves as the Deputy Innovation Officer at NSWC Indian Head Division in Southern Maryland. In this role, she has been working to enhance Indian Head's innovation ecosystem and find ways to effectively brainstorm new concepts that transition rapidly to the warfighter. Prior to this role, Samantha served as a Project Manager for the Explosive Detection Equipment Program at NSWC IHD where she oversaw the test and evaluation of equipment for the EOD community. Her background is in forensic and explosive chemistry, and she has a Masters in Forensic Science from the George Washington University.

COL JOHN MOORE, USMC

MCWL LEAD | CAPITAL TECH BRIDGE

HOME COMMAND: Marine Corp Warfighting Laboratory (MCWL)

NEWPORT, RHODE ISLAND

NORTHEAST TECH BRIDGE

VISION STATEMENT

The Northeast Tech Bridge enhances collaboration between Naval Labs, industry, academia, and other military branches to enable research and development partnerships, accelerate technology development and develop dual-use technologies to meet national defense needs. The Northeast Tech Bridge's nucleus is the 401 Tech Bridge, a non-profit organization that serves as a super-connector by leveraging public/ private partnerships that enhance regional economic strength; developing the next generation of STEM professionals; and offering meeting, training, lab and equipment space for industry, government and academic partners to collaboratively develop concepts, build and test prototypes and present solutions.

COMMANDS

Naval Undersea Warfare Center Division, Newport

PARTNERSHIPS

401 Tech Bridge

RI Commerce

Polaris Manufacturing Extension Partnership (MEP)

University of Rhode Island

Composite Alliance of Rhode Island (CARI)

Rhode Island Textile Innovation Network (RITIN)

Rhode Island Department of Labor and Training

TECHNICAL AREAS

KEY INITIATIVES

- SBIR Events
- SBIR/STTR support through universities and local prime contractors
- Collaboration with local accelerators
- Prize Challenges
- Connection with Narragansett Bay Test Facility for Tech Bridge demo days



NAVAL TECHNOLOGY TESTING

PHOTOS BY JAMES TRAVASSOS, DAVID STOEHR & PUBLIC AFFAIRS OFFICE



STEM OUTREACH

PHOTOS BY DAVID STOEHR

LEADERSHIP

STEVE BORDONARO, PH.D.

DIRECTOR | NORTHEAST TECH BRIDGE

HOME COMMAND: Naval Undersea Warfare Center, Newport Division

Steve has worked at the Naval Undersea Warfare Center in Newport, RI since 1991. His primary areas of research for the Navy are signal processing, classification (machine learning) and tracking. He now serves as the tech bridge director for the Northeast. Steve received his B.S. degree in Electrical Engineering from Boston University in 1991, and his M.S. degree, also in Electrical Engineering, from the University of Massachusetts. He completed a Ph.D. at the University of Connecticut in 2015.

PATUXENT RIVER, MARYLAND

F-35B WITH USN TEST PILOT SCHOOL F-18 OVER NAS PATUXENT RIVER

SOUTHERN MARYLAND TECH BRIDGE

VISION STATEMENT

Outreach to non-traditional tech firms, facilitating opportunities for industry and academia to demonstrate provocative technologies in a warfighter relevant environment. Prototype and collaborate with industry partners through the use of non-Federal Acquisition Regulation (FAR) agreements. We look forward to the acceleration, innovation, and enhanced industry partnerships that Southern Maryland's Tech Bridge brings to the Navy - and ultimately the fight.

COMMANDS & PARTNERSHIPS

Naval Air Warfare Center Aircraft Division

Naval Surface Warfare Center Indian Head Division (NSWC IHD)

PARTNERSHIPS

Maryland Department of Commerce

Maryland TEDCO

TECHLINK

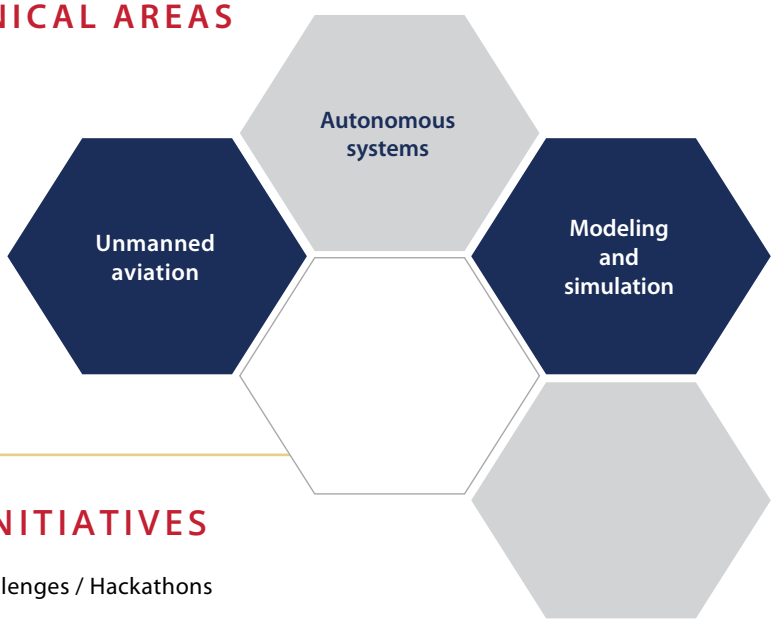
Maryland DefTech

FedTech

TechPort

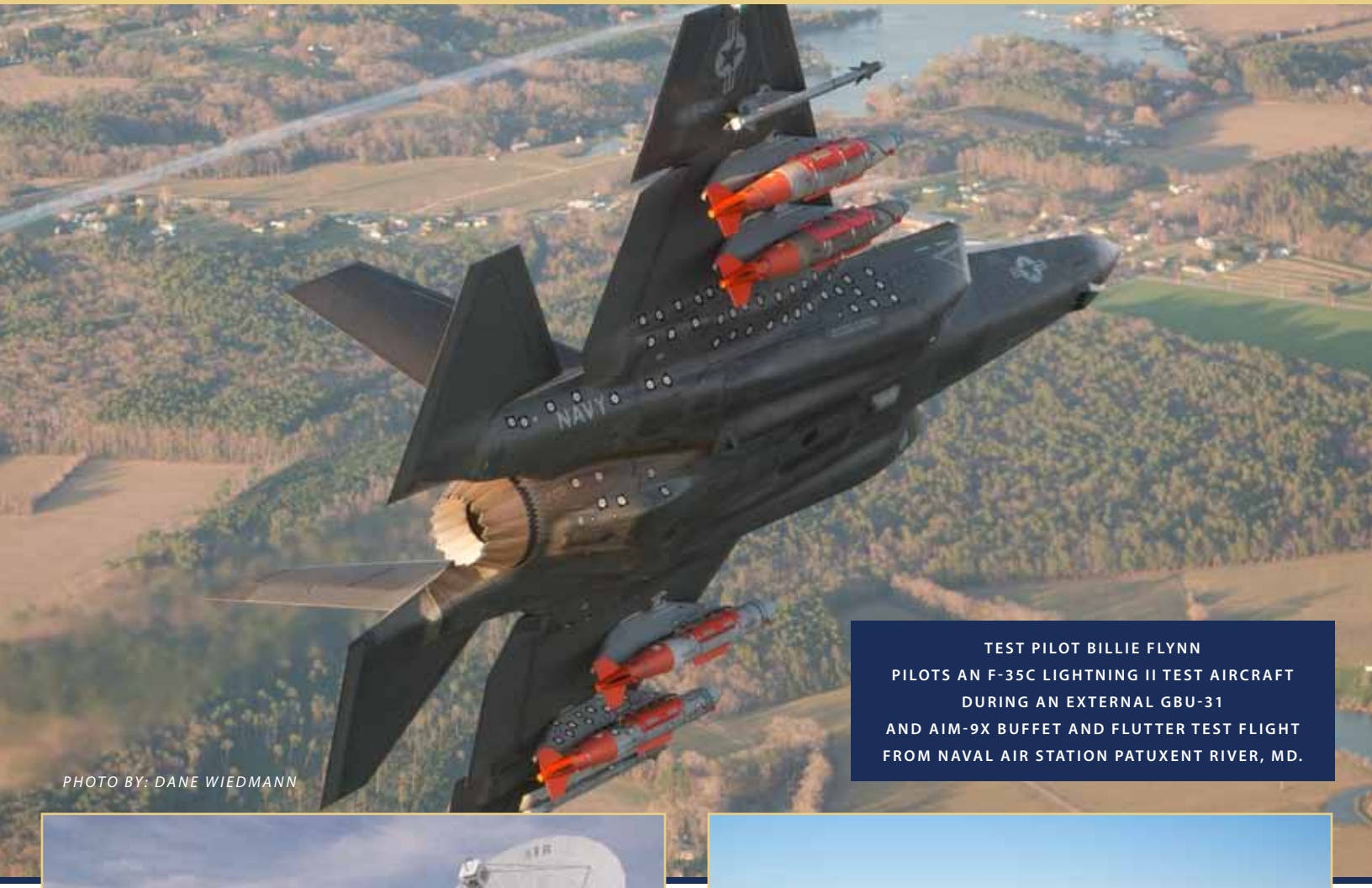
Building Momentum

TECHNICAL AREAS



KEY INITIATIVES

- Prize challenges / Hackathons
- Advanced Naval Technologies Exercise (ANTX) ATE21
- SBIR/STTR Education and outreach
- Month Tech Bridge live virtual talks
- Leveraging OTAs through the Naval Aviation Systems Consortium



TEST PILOT BILLIE FLYNN
PILOTS AN F-35C LIGHTNING II TEST AIRCRAFT
DURING AN EXTERNAL GBU-31
AND AIM-9X BUFFET AND FLUTTER TEST FLIGHT
FROM NAVAL AIR STATION PATUXENT RIVER, MD.

PHOTO BY: DANE WIEDMANN

EMITTERS AT THE NAWCAD ATLANTIC TEST RANGES

BLUE WATER MARITIME LOGISTICS UAS
PREPARES FOR FLIGHT TESTING
AT NAWCAD WEBSTER OUTLYING FIELD (WOLF)

LEADERSHIP

RICK TARR

DIRECTOR | SOUTHERN MARYLAND TECH BRIDGE

HOME COMMAND: Naval Air Warfare Center Air Division

In addition to being an innovator, designer, developer, consumer startup, T2 professional, blueberry grower, and budding arborist, Rick has had a dynamic career as a civil servant in the US Navy, in industry, and as an entrepreneur. In his current role as the director of Naval Air Warfare Center Aircraft Division's (NAWCAD) Technology Transfer Office, Rick is responsible for commercializing the organization's 60 active and filed patents, facilitating strategic partnerships with industry, and promoting the expertise and facilities of NAWCAD. Early in his career, Rick was a founding member of internet startup at Information Spectrum, Inc. where he developed the user interface, application architecture, and database architecture for startup named "Pie TV". Rick also spent time in application development, data management, and marketing as an application developer for Anteon Corporation.

LONDON TECH BRIDGE

VISION STATEMENT

OPPORTUNITY SUPERNODE for the US and UK, accelerating partnerships and connections. The London Tech Bridge is an innovation accelerator and superconnector, a joint effort between the US Department of the Navy (DON) and the UK Royal Navy. It cultivates and maintains strategic partnerships with organizations across academia, industry, and government, to produce solutions that can be scaled to benefit defense, industry, and the general public. It identifies and facilitates resources for potential solutions and provides guidance, support, and development opportunities for the defense workforce and connected stakeholders. This unique Tech Bridge leverages the historic partnership between the two nations and truly operates as a two-way flow enabling connections in the US and UK. The Tech Bridge will strengthen our nations' bond and improve the interoperability and interchangeability of our Naval and Defense Services.

COMMANDS & PARTNERSHIPS

Office of Naval Research Global

Royal Navy

Imperial College London Institute for Security S&T

NATO MUSIC^2

US Embassy London

MoD Defence And Security Accelerator (DASA)

National Security Innovation Network (NSIN)

Her Majesty's Government Dept of International Trade

UK Defence Solutions Centre

TECHNICAL AREAS

UNMANNED WARRIOR
U.S. NAVY PHOTO BY JOHN F. WILLIAMS

KEY INITIATIVES

- Facilitate convergence through seminars / forums
- Create opportunities through Networking Events
- Drive innovation through Prize Challenges
- Enable the next generation through STEM Outreach
- Identify problem and solution sets through crowd-sourcing events
- Provide access to Lab/Facility space, or RDT&E assets
- Tackle priority challenges and issues through Hacking Events
- Identify and Facilitate potential resource opportunities
- Provide access to DON &RN operational Sailors and Marines
- Offer prototype demonstration opportunities in operational exercises & training evolutions
- Enable partner matching for technology solutions
- Open opportunities to pitch solutions to DON and RN leaders
- Facilitate Investment Showcase Events

LEADERSHIP

CDR ALBERT "PRINCE AL" ARNOLD

U.S. NAVY CO-DIRECTOR | LONDON TECH BRIDGE

HOME COMMAND: Office of Naval Research Global

Commander Albert "Prince Al" Arnold IV is a P-3/P-8 Naval Flight Officer, US Naval Test Pilot School Graduate and Navy Space Cadre member. His operational experience spans every AOR the US Navy currently operates in and includes 80+ combat missions. As a Navy Acquisition Professional member, has led programs across the full spectrum of acquisition with experience at NAVAIR, NAVWAR, the National Reconnaissance Office and the Office of Naval Research Global. Currently, he is assigned as the Director of the NavalX London Tech Bridge, UK, accelerating innovation alongside the Royal Navy and MoD improving our nations' interoperability and interchangeability.

CDR ALEX BINGHAM RN

ROYAL NAVY CO-DIRECTOR | LONDON TECH BRIDGE

HOME COMMAND: Office of the Chief Technology Officer

CDR Bingham is a Chartered Marine Engineer who has completed his Sub-Unit Command assignment as the Marine Engineer Officer of HMS SUTHERLAND, an Anti-Submarine Warfare Frigate. He has deployed to all operational theatres the Royal Navy is active in, and since coming ashore, has undertaken roles in Ship Capability Management, Resource/Plans/Finance, Portfolio Management and Infrastructure Planning. Recently working as the Future Tech desk officer in the Royal Navy's Office to the Chief Technology Officer, CDR Bingham is committed to accelerating cutting edge technology into the hands of the Front Line, and identifying opportunities to enhance the UK/US move from interoperability to interchangeability.

HAWAII TECH BRIDGE

VISION STATEMENT

The vision of the Hawaii Tech Bridge is to establish an innovation ecosystem in Hawaii where the Department of Defense, private industry, academia, and state and local governments can collaborate to solve Navy and Marine Corps needs, while being mutually beneficial to all. Hawaii is an ideal location for a Tech Bridge due to its proximity to the Indo-Pacific region and its major military commands, along with a flourishing local technology sector and world-class academic institutions.

COMMANDS

Naval Information Warfare Center Pacific (NIWC Pacific)

Naval Undersea Warfare Center (NUWC)
Keyport Detachment Pacific

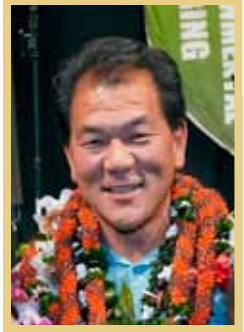
PARTNERSHIPS

Hawaii Technology Development Corporation (HTDC)

University of Hawai'i Office of Innovation and Commercialization (OIC)

TECHNICAL AREAS

LEADERSHIP



NEAL MIYAKE

DIRECTOR | HAWAII TECH BRIDGE

HOME COMMAND: Naval Information Warfare Center Pacific, Indo-Pacific Department

Neal Miyake is employed by Naval Information Warfare Center Pacific (NIWC Pacific) as the Indo-Pacific Department's Business Deputy. In that capacity he supports new business pursuits, business strategy, public affairs / promotion, science & technology (S&T) / research & development (R&D), and educational outreach / recruitment. He has a bachelor's in electrical engineering from the University of Hawaii at Manoa and enjoys water surf photography.

Newly Launched!

PANAMA CITY, FLORIDA

GULF COAST TECH BRIDGE

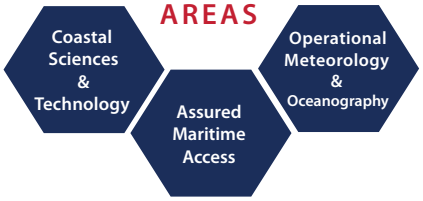
VISION STATEMENT

The Gulf Coast Tech Bridge is the regional super-connector, focused on solving the Navy's hardest problems in coastal regions through innovative and agile practices. The Tech Bridge is focused on the future, growing coastal science and unmanned vehicle development, hosting industry events and expanding strategic partnerships. The group benefits from a premier testing environment on the Gulf of Mexico as well as direct fleet support.

COMMANDS

Naval Surface Warfare Center Panama City Division (NSWC PCD)
Naval Research Lab (NRL) South
Naval Meteorology and Oceanography Command (CNMOC)

TECHNICAL AREAS



PARTNERSHIPS

Naval Diving Salvage and Training Center (NDSTC)
Naval Expeditionary Combatant Command (NECC)
National Oceanographic and Atmospheric Administration
Florida State University
Bay Defense Alliance
Mississippi Enterprise for Technology (MSET)

LEADERSHIP

HOLLY GARDNER

DIRECTOR | GULF COAST TECH BRIDGE

HOME COMMAND: Naval Surface Warfare Center, Panama City Division

As a passionate engineer and strategist, Holly is focused on cultivating the science and expertise talent of the Gulf Coast and growing the region into a center of excellence for Coastal Science. Currently serving as the Director of Strategy and Engagement for NSWC PCD, Holly has previously worked in Washington, D.C. as a contractor for the U.S. Navy and the Department of Homeland Defense (DHS). With a M.S. in Systems Engineering and a B.S. in Ocean Engineering, Holly has had the opportunity to work as a science and technology (S&T) expert, professor and business owner- experiences that she's able to build upon as she focuses on serving as a super-connector for industry, academia and the Navy. When she's not solving technology problems you can find her experimenting in the kitchen, taking pictures, and spending time with her family.

JOSEPH CALANTONI, PH.D.

NRL LEAD | GULF COAST TECH BRIDGE

HOME COMMAND: U.S. Naval Research Laboratory (NRL)

Dr. Joseph Calantoni is the Branch Head of the Seafloor Sciences Branch of the Ocean Sciences Division at NRL. His research portfolio is broadly focused on understanding the physical, mechanical, and acoustical properties of seafloor, estuarine, and riverine sediments through a combination mathematical and numerical modeling, detailed laboratory measurements, and field experiments with military applications in mine warfare, Naval special warfare, and the burial and mobility of UXO.

CAPT MICAH A. WELTMER, PH.D., USN

CNMOC LEAD | GULF COAST TECH BRIDGE

HOME COMMAND: Naval Meteorology and Oceanography Command (CNMOC)

CAPT Weltmer is the N8/9 (Capabilities, Requirements, and Innovation) lead for the Commander, Naval Meteorology and Oceanography Command (CNMOC) as well as the Gulf Coast Tech Bridge CNMOC representative. He directs research and development, experimentation, innovation and investments in cutting-edge technologies, enhanced understanding of the environment, and revolutionary applications to inform risk management and operational effects-based decisions for the U.S. Navy.

SMALL BUSINESS INNOVATION RESEARCH (SBIR)
AT TECH BRIDGES

U.S. NAVY PHOTO BY BOBBY CUMMINGS

As we implement programs to identify, develop and infuse innovation in Navy solutions, we think of the SBIR/STTR program out of the Office of Naval Research. The Navy has had a great response to its Phase I and Phase II requests and takes pride in the technologies that progress on to Phase III opportunities. Yet, in the spirit of accelerating cutting-edge solutions to the warfighter missions, we can always improve. Our initiative is to bring together cross-functional professionals from the Navy technologies, ONR programs, industry, academia, and the nonprofit arena to engage in a series of roundtable discussions focused on "optimizing" Naval R&D investments.

We will share stories, ideas, experiences, and approaches that may serve to set the stage for how we might think about evolving our processes and operations. The first roundtable will depict current state with perceived benefits, limitations, and opportunities. The second roundtable will define our ideal state, a vision for an optimized model of technology transition. The third roundtable will suggest ways we can go from current to future state, as we look to ever improve our nation's ability to put the most timely, effective solutions into Defense missions. It may never be perfect, but we can always look to get better.

SBIR·STTR
America's Seed Fund

DEPARTMENT OF THE NAVY SPONSOR

BOB SMITH

DIRECTOR | DON SBIR/STTR PROGRAMS

HOME COMMAND: Office of Naval Research

As Director of the Navy's SBIR/STTR and Special Programs, Mr. Smith manages numerous activities designed to assist small businesses in getting their technologies fully developed, tested, and inserted into products and services used by our Naval warfighters. Prior to his current assignment, Mr. Smith was the Director of Disruptive Technologies in the Office of Naval Research. The mission of the Disruptive Technologies program is to provide game changing technical options for the future Navy. Mr. Smith was also the Program Manager for the Department of the Navy's Rapid Innovation Fund, which supports small business concerns rapidly inserting their technology solutions into acquisition programs of record. Mr. Smith was lucky to have previously spent 22 years as a Marine helicopter pilot.

TECH BRIDGE SBIR TEAM

SHADI AZOUM

SBIR/STTR LIAISON OFFICER | **NAVALX TECH BRIDGES**

HOME COMMAND: Naval Information Warfare Systems Command

Shadi Azoum is the current NavalX SBIR/STTR Liaison Officer (LNO), supporting all Tech Bridges in the Navy SBIR/STTR realm. He is also the current SBIR/STTR Program Manager for the Naval Information Warfare Systems Command (NAVWAR), and previously served as leading science and technology efforts for the Navy's Cybersecurity office under Program Executive Office Command, Control, Communications, Computers and Intelligence (PEO C4I). With a background in computer science and information security, Shadi enjoys coding and teaching non-coders how to learn to code and develop their own software products.

LEE SILVESTRE

COORDINATOR | **NORTHEAST TECH BRIDGE**

HOME ORGANIZATION: Polaris Manufacturing Extension Partnership

Lee Silvestre has a 30+ years in technology, innovation and product development. With an educational background in Applied Math and Operations Research, she was a senior Defense consultant at KPMG Peat Marwick and technical innovation Vice President at Raytheon Company. She transitioned to the startup entrepreneurial space through Performance Indicator LLC, and then transitioned to nonprofit defense, standing up the Undersea Technology Innovation Consortium. She currently is the Northeast Tech Bridge Coordinator.

GRETEL VON SON PALACIO

COORDINATOR | **CALIFORNIA TECH BRIDGES**

HOME COMMAND: Naval Information Warfare Systems Command

Gretel has supported the NAVWAR SBIR/STTR Program Office since 2019. Her knowledge of the program's efforts and processes has allowed her to develop efforts and partnerships in support of the program's mission. In addition, Gretel's background in the pharmaceutical and biotech industry is an asset to the development of a connected network for the San Diego ecosystem.

JENNA DIX

COORDINATOR | **MIDWEST TECH BRIDGE**

HOME COMMAND: Naval Surface Warfare Center, Crane Division

Jenna has served with the NSWC Crane Technology Transfer (T2) program since 2015. She currently leads the program as the designated Office of Research & Technology Applications designee and director of the T2 program for NSWC Crane. Jenna is responsible for the strategic management of the lab's intellectual capital and developing strategic partnerships that enhance the research and development capabilities of NSWC Crane.

SIDNEY FOOSHEE, PH.D., CAPT MSC USN (RET.)

COORDINATOR | **CENTRAL FLORIDA TECH BRIDGE**

HOME ORGANIZATION: Energetics Technology Center

Sidney is the NavalX Central Florida Tech Bridge Coordinator at the Naval Air Warfare Center Training Systems Division (NAWCTSD) in Orlando, Florida for the Energetics Technology Center. He spent twenty years in the U.S. Navy as an Aerospace Experimental Psychologist (AEP) before he retired as a Captain (06) in 2018. He was a Defense Acquisition Corps member and Level III in Engineering. His last tour in the Navy was at the Office of the Under Secretary of Defense for Research and Engineering (OUSD R&E) where he had R&D oversight for Training, Human Systems, Joint Nonlethal Weapons, and Language portfolios across the Services.

RALPH E. DUNCAN, PE

COORDINATOR | **NORTHWEST TECH BRIDGE**

HOME ORGANIZATION: IMPACT Washington Manufacturing Extension Partnership

After what would be considered a lifetime of adventures on, under and over the water, that provide me with a broad technical background of the ocean, ships and in general the maritime industry, I really did think I had a solid perspective. But, in 2011 I learned the power of story to fuel innovative thought. Stories gets the audience's attention, the story draws the audience in, but more importantly, the story personalizes the facts and encourages people to imagine the possible. At that point, the story begins to foster diversity. I am pleased to be part of the Northwest Tech Bridge team, engaging with businesses in the regional ecosystems and helping them create their future stories. Oh, if I am not engaging with small businesses or others in the ecosystem, (or thinking about it) you will probably find me in my home studio with a watercolor paint brush or wood carving tools in my hand.

ONR CODE 36 SPONSOR

The Office of Naval Research (ONR) established the Naval Accelerator with a series of technology, business and workforce programs dedicated to creating an effective agility network across the Naval Research and Development Establishment (NR&DE) and promoting partnerships with government, academic and industrial partners. The network is holistic in nature and includes agility methodologies and best practices to accelerate technology deployment to the warfighter, while creating a skilled, incentivized workforce to apply these methodologies and best practices across the NR&DE. Furthermore, the lessons learned from these pilots will be scalable across the entire Department of the Navy (DON) Enterprise.

OFFICE OF
NAVAL RESEARCH

U.S. NAVY PHOTOS BY BOBBY CUMMINGS & TODD MAKI

ONR SPONSOR

RICHARD T. CARLIN, PH.D., SES

NAVAL ACCELERATOR | OFFICE OF NAVAL RESEARCH

Over 40 years of experience in scientific research spanning academia, industry and government. Extensive experience in the defense research community, including over 12 years as the Department Head for Sea Warfare and Weapons that required both strategic and tactical planning of programs that address Naval S&T requirements across a breadth of technical areas and align with the Department of the Navy leadership guidance and policies. As a Senior Executive, provides technical and strategic advice to Navy senior leadership that led to the implementation of several initiative that merge technology innovation, entrepreneurship and workforce development, especially for veterans. These initiatives span across and link together academia, Navy laboratories, commercial and defense industries, and the private investment sector, and they are now are a full-time responsibility within the Naval Agility ecosystem.

FUTURE OUTLOOK

In the coming year, our vision is to create a larger and stronger Tech Bridge network by partnering with other innovative organizations to strengthen local ecosystems, execute more prize challenges, projects, events, and find more efficient ways to accelerate solutions and improvements to the Department of the Navy.

We deeply appreciate the support you all have given from your commands, organizations, schools, companies, small businesses, and also as caring individuals. You've played an invaluable part in this Tech Bridge network and we look forward to what we can achieve together in 2021!

NAVALX TECH BRIDGE HEADQUARTERS

WHITNEY TALLARICO | CO-FOUNDER & DIRECTOR

HOME COMMAND: Office of Naval Research

Whitney has a diverse background. She has a MA in International Development Studies, was a teacher for three years, released her first musical single in 2017, and spends most of her time trying to transfer concepts from one field to the next. She serves as the National Tech Bridge Director for the Assistant Secretary of the Navy's Agility Cell, NavalX, and as a Program Manager for the Office of Naval Research. She specializes in identifying and cultivating projects, programs, and relationships with other federal, state, university, and private partners.

LING TANG | DEPUTY DIRECTOR

HOME COMMAND: Portsmouth Naval Shipyard Detachment San Diego

Ling began her career in shipboard testing and work controls on submarines at Pearl Harbor Naval Shipyard and continued on to support operations with Portsmouth Naval Shipyard Detachment San Diego. Being a NavalX rotational has opened her aperture to the larger Navy and Marine Corps operations and she is keen to filling in gaps and supporting behind the scenes. When not at work, Ling enjoys the outdoors and experiencing new things.

STEVE FRAILE | CUSTOMER ADVOCATE

HOME COMMAND: Naval Information Warfare Center Atlantic

Recently finishing up his tenure as the NavalX Operations Officer, Steve is now the Digital Tools Liaison at NavalX, under the office of the Assistant Secretary of the Navy for Research, Development, and Acquisition. Prior to NavalX, Steve was the Integrated Product Team (IPT) Leader for the Expeditionary Intelligence Technology Improvement, Innovation, and Quick Reaction Capability IPT at Naval Information Warfare Center Atlantic. He has led a team on to accomplish technical transitions into acquisitions programs to build innovation capacity in the USMC intelligence community (IC) workforce and also served 8 years in the USMC. In his off-time Steve enjoys exercising and is a part time Realtor.

Special thanks to NavalX Tech Bridge Co-founder:

CDR Sam "Chubs" Gray, USN (Ret)

NavalX Tech Bridge Headquarters

The Garden by Building Momentum
5380 Eisenhower Ave., Suite C
Alexandria, VA 22304

agility@navy.mil • www.secnav.navy.mil/agility

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